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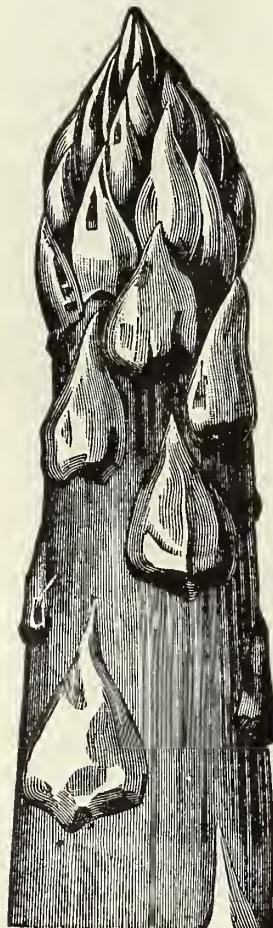
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LEONARD'S SEEDS



GREEN GLOBE
ARTICHOKE



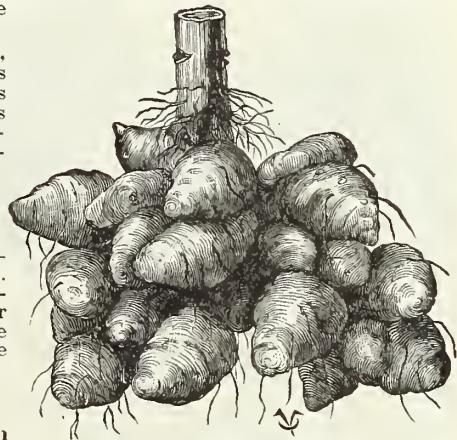
ARGENTEUIL

ARTICHOKE

The Globe Artichoke is grown for the use of its unexpanded flower heads that are cooked like asparagus. If started in a hot bed and handled like a tomato it matures the first year. Oftenest it is treated like a perennial, that is, given slight covering in winter it remains in bearing several years. Give the plant two to three feet space in three-foot rows and cut all flower buds before opening to continue to plants blooming.

Large Green Globe. The standard variety.

The Jerusalem Artichoke, distinct from the Globe, is grown from the tubers for its tubers, as are potatoes. Its value is as a stock food, because of its fattening properties.



ARTICHOKE JERUSALEM

ASPARAGUS

Complete cultural directions furnished on request. As some cutting may be begun only in the third year from planting the seed the use of roots or plants prove an expediency.

ASPARAGUS SEED

Columbian Mammoth White. A new and entirely distinct variety that produces shoots that are white, and remain white as long as fit for use.

Conover's Colossal. The standard variety; of large size, tender and of excellent quality.

Barr's Mammoth. The stalks are very large, frequently one inch in diameter, with few scales; the stalks retain their thickness completely up to the top of the shoots, and have close, round heads.

Palmetto. It is of very large size, even and regular in growth and appearance. It is a very early sort, and immensely productive and of the best quality.

Giant Argenteuil. Is a selection from imported French Argenteuil stock. An improvement upon the original. In the south it is regarded as distinctly superior to Palmetto. One experienced grower says that Argenteuil is as much larger than Palmetto as Palmetto is larger than Conover.

Bonvallet's Giant. Becoming very popular with large growers. Preferred by many over all other kinds.

ASPARAGUS PLANTS

Asparagus Roots can be supplied from November 1st to May 1st, but the best time for planting in the North is in the early spring.

Columbian Mammoth White. 2-year-old roots.

Conover's Colossal. 2-year-old roots.

Barr's Mammoth. 2-year-old roots.

Palmetto. 2-year-old roots.

Giant Argenteuil. 2-year-old roots.

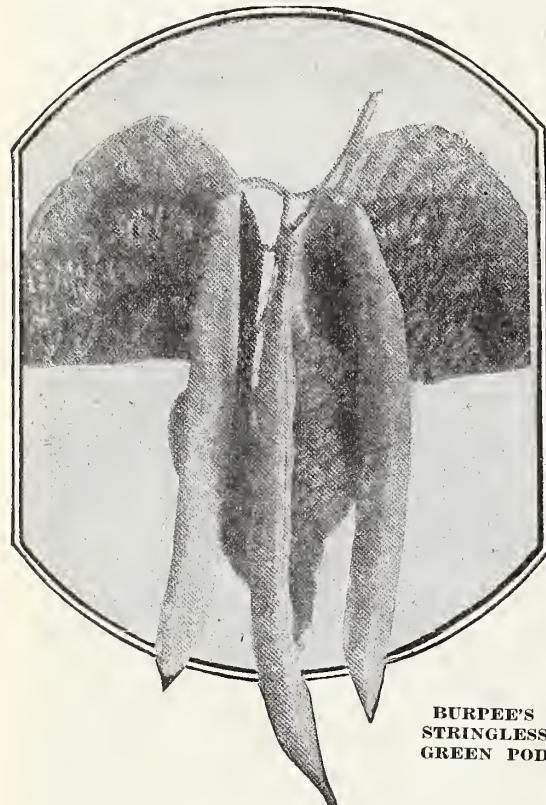
Bonvallet's Giant. 2-year-old roots.

BUSH BEANS GREEN POD VARIETIES

Culture. Beans are easily frost killed, so plant them at corn planting time on light dry land. Cold wet weather will rot the seed in the ground and fresh manure causes a rank growth of vine with a lack of pods. If hand cultivated beans can be drilled in poor soil as close as eighteen inches, but in rich soil with horse cultivation thirty inches is required. Drill six beans to the foot and cover one inch deep; or plant four beans to the hill eighteen by twenty-four inches apart. One quart of seed should plant 200 feet and five pecks plant an acre. Plant every third week for a succession up till Aug. 1st in the latitude of Chicago. Pick beans before the bulge of seed appears and pick beans clean to continue the plants bearing. Give beans shallow cultivation and do not till the soil when the plant is in bloom or the plant in self defence will drop its blossoms. To cultivate when wet is to invite rust.

Extra Early Red Valentine. Hardy, pod light green, and semi-transparent, round and slightly curved. Succulent, prolific, and quite free from strings, continuing long in an edible condition; 46 days from planting to first picking.

Burpee's Stringless Green Pod. This new bean produces a vine similar to Red Valentine, but develops pods to an edible condition in 42 days, about four days earlier than Valentine. The pods are green, not quite so round as Valentine and less curved. The pods are stringless, absolutely so, this quality at once placing the variety at the top of the list among table beans, while the early maturity is of great merit. This stringless quality is of particular value, the pods breaking as short and free as pipe stems.



Giant Stringless. A very hardy, stocky vine, pods long, round and green in color, of exceptionally fine quality and stringless throughout its entire growth. About a week earlier than Red Valentine and much more prolific.

Tennessee Green Pod. This dwarf snap bean, although new to the Seed Trade, has for several years been grown in the South, and wherever known is freely spoken of in terms of highest praise. Vine prolific, foliage dark green with leaves large and crumpled. Pods long, flat, irregular in shape, bright green and of most excellent quality. Seed medium size, oval, flat, yellowish brown in color.

Leonard's Pheasant Eye. Is a valuable new green podded variety. Vines hardy, sturdy, well leafed. Pods long, meaty, stringless and of excellent quality. Originated from plants found in Bountiful; it retains all the good points of that variety, with added symmetry of pod. Seed white, splashed more or less at eye side with yellowish brown, which coloring also surrounds eye.

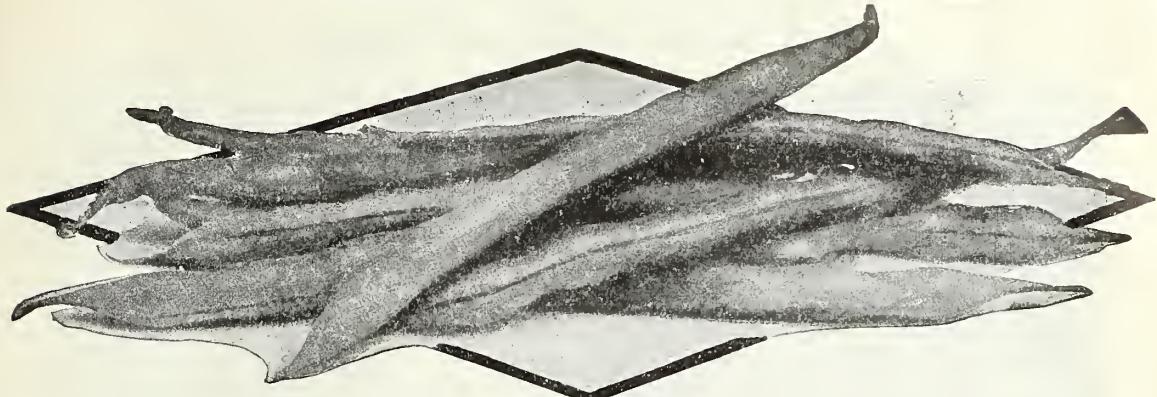
Bountiful Beans. This new, green podded Bush Bean is a heavy cropper and very early, of fine shape, stringless, and good quality. Its hardiness and great productiveness make it one of the very best Bush Beans.

Dwarf Horticultural. Vines very productive, compact, upright, with large leaves. Pods medium length, cylindrical, curved, with splashes of bright red on a yellowish ground. Seed large, oval, plump and nearly covered with splashes of bright red.

Long Yellow Six Weeks. The vine is large, vigorous, branching and productive, with large leaves. Pods long, straight, thick, flat in shape, green in color, of good quality when young and fair as they near maturity. Is ready for picking 45 days from planting.

Round Yellow Six Weeks. Very similar to Long Yellow Six Weeks as to vine, with pods shorter and much more thick and fleshy, about one week later, being ready for table 57 days from planting. Seed round, yellowish drab with a slightly darker marking about the eye.

To plant and successfully raise vegetables and "Garden Truck" this year is to economize. Help to relieve the food situation. Meat production undoubtedly will be lessened due to several causes. So do your bit by planting as large a garden as you possibly can.



LONGFELLOW BEAN

BUSH BEANS—Green Pods—Continued

Longfellow. This new bean has long green pods, is exceedingly prolific, always solid, a delicious flavor, is tender and remarkably early. It matures its crop very regularly and withstands adverse conditions well. A good bean for market or home use.

Black Valentine. This excellent variety is a great improvement over the old standard early Red Valentine, being one-third longer than that variety, with pods perfectly round and straight and of excellent quality. It also has the additional advantage of being suitable for both early and late planting and is extremely hardy. It will withstand early and late frost, is an excellent shipper, a large yielder, and of very handsome appearance.

Extra Early Refugee. Very much earlier than the Old Style Refugee, or 1000 to 1, being fit to eat in 48 days from planting. More dwarf and compact in growth, while the pods are round, solid, tender, and of excellent quality, suitable for table use, canning or pickling.

Refugee, or 1000 to 1. The vines large, spreading, exceedingly hardy, with small, smooth leaves, very late and bear long, cylindrical green pods of excellent quality. Highly esteemed for late planting and for use as pickles.

Early Mohawk. One of the oldest and best known sorts. The pod is green, thick, flat in shape, of fair quality, developing a slight string as it matures. Is ready to pick 48 days from planting, and will resist a slight degree of frost very successfully.

Best of All. The hardy, vigorous vine produces an abundance of very straight, handsome pods which when fit for use as snaps, are very brittle and of a peculiar deep green color.

Improved Tree or Dwarf White Navy. A variety developed in western New York. Is a sure cropper, and not only more prolific than the common white bean, but also of better quality.

Large White Marrow or Mountain. Vines are large, slender, spreading, with short runners and small leaves; very prolific; pods medium, broad; green, changing to yellow; beans large, clear white, ovoid, cooking very dry and mealy.

Red Kidney. Well known shell bean.

White Kidney. A slender white bean of superior quality; used shelled, green or mature.

Broad Windsor. The standard English horse bean.



BLACK VALENTINE

THE SEED SHORTAGE

So urgent has become the European demand for food due to the war that very frequently the seed crops have had to give way to the growing of such crops as may be utilized for food. In many cases, the majority of employees of the best foreign seed growers have been called to the war, leaving behind only those who are either too young or too old for war service to look after the growing and harvesting of seed crops. This will of necessity mean a lessened production and perhaps a production of some inferior seed. In America adverse weather conditions from planting until harvest time, early frost, anthracnose in beans, etc., joined with the unusual foreign situation to make the seed production for this year much less than normal. Therefore we advise the early buying of seed before some of the varieties wanted are exhausted.

BUSH BEANS—Wax Pod Varieties



REFUGEE WAX

ous bush than the Improved Prolific Black shaped very much like a pencil.

Prolific Black Wax. The old standard Black Wax Bush Bean. It is so good that it is worthy of special notice. The pods are round, brittle, of handsome golden yellow color, and of buttery flavor when cooked.

Detroit Wax. A distinct variety of recent introduction, which is worthy of a place in every garden. The waxy, yellow pods are produced in great abundance and the quality is extra fine.

Flageolet Wax. A large bush wax variety; seed large, purplish red; excellent as a snap bean, and in great favor as a dry shell bean.

Refugee Wax. A perfect Refugee with wax pods. Pods long, round, and of a golden yellow color. One of the earliest, quality excellent and is fit for picking 57 days from planting. A very fine canning bean.

Hodson Wax. An excellent sort, later than some of the others, but having many superior points.

Round Podded Kidney Wax. A round podded variety of great merit.

White Wax. The old standard white seeded wax bean, very prolific.

Leonard's Webber Wax. A new Wax Bean of distinct character. This bean has been in the hands of a few Chicago gardeners for some years back. Several years ago we secured a small lot which we have nursed along and this year we have enough seed to offer it in limited quantities to our customers. The vine is strong, holding the pods well up. The pods are of an exceedingly bright yellow color, handsomer in this respect than any other wax bean; in shape they resemble Wardwell's wax but are rounder and more meaty. The color of the seed is yellow.

Davis White Wax. This bean is adapted alike for the canner, market gardener, shipper or amateur. The dry bean is large, kidney shaped, and white in color, making it one of the best for cooking in a dry state. Pods are long, meaty, flat in shape, and of a beautiful yellow color and fair quality.

Currie's Rust Proof Wax. An excellent Wax Bean in every respect. Rust proof, tender, thick, flat pods of very good quality. Very little string in early stages, developing a little when nearing maturity. Fit for table use 47 days from planting.

Improved Golden Wax. Rust proof, an improvement on the old style Golden Wax. Pod is semi-round, yellow, of good quality and has no string. Ready for picking 47 days from planting.

Wardwell's Kidney Wax. Hardy and productive, pods long, broad, thick, flat, and of a delicate waxy yellow, of excellent quality and with no string in the early growth, ready for table 48 days from planting.

Pencil Pod Black Wax. Pencil Pod Black Wax grows a taller, stronger and more vigorous Wax, long, slender, straight, handsome pods,



PENCIL POD BLACK WAX

**TRY Leonard's Pleasant Eye GREEN
POD**
Leonard's Webber Wax
TWO VERY FINE NEW BEANS

DWARF LIMA VARIETIES

Culture. As the lima requires even more heat than other beans, a failure will follow a too early planting. The bean when favorably planted throws out from what we term the bean's eye a stout root; this root in turn lifts the bean above the ground. The bean then opens its halves or false leaves, or cotyledons, and the true leaves soon follow. If in planting the bean is thrust into the soil eye down, and just below the surface, the bean is in a favorable position to begin its growth. However, the crop can be secured though with a lesser percent of germination by dropping the bean in any position.

Bush or Dwarf Limas are earlier than pole limas and are planted in twenty-four to forty inch drills, three to six inches apart in the row, according to varieties. One quart plants one hundred and twenty-five to one hundred and fifty feet.

Burpee's. The only bush form of the true, luscious, large lima. It is pronounced by all good judges as unquestionably the real Bush Lima. The bushes grow eighteen to twenty inches high, of stout growth and always erect. It is an immense yielder.

Dreer's. The true bush form of the chubby Dreer's or Potato Lima. The pods are heavy and thick. It is quite productive and of excellent quality.

Fordhook Bush Lima. Vines strong, erect and true Bush Lima growth. Foliage heavy and very dark green in color. The stalks that produce the blossoms are thrown out from the lateral and main stalks. The pods resemble Dreer's Bush Lima, but average more than double the size and contain from 3 to 5 beans to the pod.

Henderson's. This is a bush form of the small Sieva pole bean. It is the original bush form of the pole beans. It is the most productive of any, and on the whole is a vegetable of great merit.

New Wonder. This gives the largest and best returns—a big crop from a small space—and is a decided improvement on the original type of Burpee's Bush Lima. The beans are of flat shape and fully equal in flavor to the famous Dreer's Bush Lima, so well and favorably known.

POLE BEANS

Culture. The pole bean climbs, sometimes needing a little training over any support given it. A good practice is to set firmly in the ground every three or four feet each way, poles that are, when set, about six feet high. Some time after bunch beans are planted, six or eight pole beans are planted one inch deep near the base of each stake and latter thinned to three or four plants to the pole. One half bushel of pole beans generously plants an acre and one pint plants one hundred hills. The pole bean bears over a longer period than the bunch bean and is generally considered of superior quality, but it requires more labor, longer time to mature, and is more sensitive to adverse climatic and soil conditions. Note that the vine turns only one way around its support.

When too old for use as a green snap bean, use any bean shelled, or still later, when it is hard and dry, it remains equally serviceable.

Kentucky Wonder. Vines vigorous, climbing well, and very productive, bearing its pods in large clusters; blossoms white; pods green, very long, often reaching 9 to 10 inches. Nearly round when young and very crisp, although as they reach maturity they become irregular and spongy. Dry Beans long, oval, dun-colored.

Lazy Wife. One of the most productive and easily gathered of the Pole Beans, hence its very discourteous name. A most excellent bean for the home garden.

Scarlet Runner. Height, 10 feet, with dazzling scarlet flowers from July to October; both ornamental and useful. It is used either as a string or shelled bean.

London Horticultural, or Speckled Cranberry. Vines moderately vigorous, bearing short, broad, pale green pods, becoming streaked with bright red as they near maturity. Beans large, ovate and splashed with red. Used either green or in the dry state.

Red Speckled Cut Short (or Corn Hill). This is the best sort of plant in hills of corn. A great cropper.

Dutch Case Knife. Vines moderately vigorous, climbing well and excellent for a corn hill bean; leaves large, crumpled, and pods very long, flat, green in color, becoming creamy white later. Beans broad kidney shaped, flat, and white in color.

Early Golden Cluster Wax. One of the very finest pole beans. Very early, being only a week later than Golden Wax.

White Creaseback. An extremely early Pole Bean. Vines small to medium and wonderfully productive. Bearing pods in clusters of from 4 to 12, and medium in length. An excellent shipper.

Early Jersey Lima. 10 days earlier than any other Lima. Recommended as a most profitable Lima Bean.

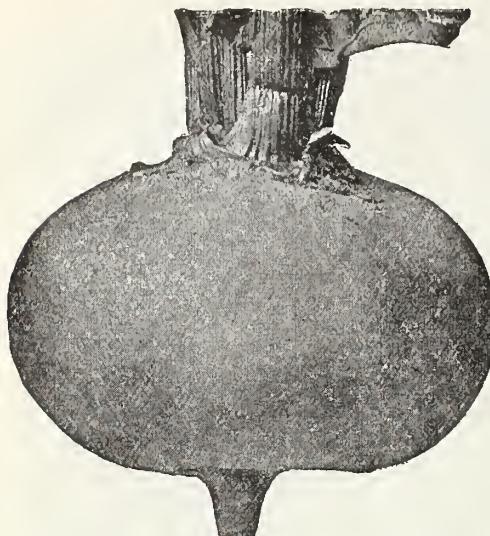
Dreer's Improved or Challenger Lima. This is a bean of rather peculiar shape, being thick and plump, rather than flat and oval.

King of the Garden Lima. The old standard market and family sort. The vine begins to produce pods at the foot of the pole, and the bearing season continues until frost. Pods large, and well filled with beans of mammoth size.

Large White Lima. The large Lima is a general favorite wherever it can be cultivated, on account of its excellent flavor and productiveness.

Small White Lima, Carolina or Sieva. Vines vigorous with many short branches, so that they are sometimes grown without poles; very early and productive, bearing short pods, which are thin and curved.

TABLE BEETS



CROSBY'S EGYPTIAN

handsome. Round, and a clean, smooth surface.

Detroit Dark Red Turnip. Quality good, sweet and tender; color deep red; roots are turnip shaped, with small tap roots.

Dewing's Early Blood Turnip. A good variety for main crop. Keeps well. Like Edmand's, but lighter color.

Edmand's Early Blood Turnip. The best sort for general crop. In quality one of the finest, exceedingly dark, shape globular, having only one tap root. Very popular with market men.

Improved Blood Turnip. An improved variety of the Early Blood turnip of deep, blood-red color; fine form and flavor. An excellent market sort.

Bastians. An extra early variety, much esteemed by market men East and South. Color light.

Ruby Dulcet. Globe-shaped; in every respect a handsome market sort; small top, small tap-root; skin and flesh deep, rich, purplish crimson.

Half Long Blood. One of the best for winter use. The roots are only half as long as the Long Blood, but weigh as much on account of their thickness.

Long Smooth Blood. The standard long late sort. Very dark, blood-red flesh; quality fine.

Electric. A fine early beet. The color is dark crimson, with rings of a lighter red. Shape, round and smooth; leaves, small and compact.

Columbia. Round and smooth, with deep red flesh; early and very tender.

Arlington Improved. Early; deep round form; medium size; color, dark blood red; does not become stringy.

Early Egyptian. The well-known early variety. Color, extra dark; shape, flat; quality, excellent.

Early Eclipse. A choice early variety; well known and popular. Shape, globular; quality, good; color, light.

Lentz Extra Early Blood Turnip. A favorite market-gardeners' beet around Philadelphia. Very early and sweet; ringed red and white.

Swiss, Chard, or Silver. This robust growing variety is often referred to as the Spinach Beet and is grown for its leaf, not for its root. The thick rib may be stripped from the leaf and used as in Asparagus while the rest of the leaf is served as "greens."

Culture. As soon as the soil can be worked in spring, sow beet seed in twelve to eighteen-inch drills for hand hoeing or eighteen to thirty-inch drills for horse cultivation, dropping twelve seed to the foot. Cover the beet seed, which is really a beet fruit containing one or more seeds, one-half inch deep. Later, thin the beets to stand five to the foot. Planted April 1st the early varieties should be marketable June 1st or the crop may be advanced several weeks by starting under glass and transplanting to the open, first giving the beet tops a severe pruning. Use one ounce of seed to one hundred feet of row and five or six pounds to the acre. Beets sown in early July should be ready to store in pits or in sand in the cellar when freezing weather begins.

Leonard's Egyptian. This is the earliest and best bunching beet for market gardeners. It has been grown for many years by the gardeners of Chicago, and now they prefer it above all others.

Crosby's Egyptian. This variety resembles the Egyptian only in its extreme earliness. The stock we offer is of a distinct vermillion color, which is very attractive not only in the beets as pulled, but after they have been cooked. They are also more spherical than the Extra Early Egyptian and we think of better quality.

Early Turnip Bassano. Tops large; leaf stems light red; leaves light green; roots large, flesh pink, zoned with white.

Crimson Globe. This is one of the finest beets yet introduced. Roots are not large, but very

handsome. Round, and a clean, smooth surface.

Leaves very small, with slender stems.

MANGEL WURZELS

Mangel Wurzel, called also stock beet or cow beet, is a very large beet growing mostly above the ground and all stock eats it greedily. Plow deep for this crop and in May or June plant six Mangel seed to the foot in two or three foot rows, later thinning to a ten inch stand. One ounce sows generously one hundred feet of row and an acre requires five to six pounds. When a light frost has occurred, lift the roots and store in pits or cellars.

Leonard's Improved Mammoth Long Red. The largest and most productive variety. Immense crops can be grown from it.

Norbiton Giant Long Red. Very large, excellent variety for feeding stock.

Yellow Globe. Globular shaped roots. More productive than Long Red in shallow soil. Very nutritious and a good keeper.

Golden Tankard. Shape cylindrical, color deep rich yellow, flesh yellow circled with white. Unequalled for feeding stock.

Orange Globe. We think this one of the best varieties of mangel wurzel.

SUGAR BEETS

The Sugar Beet, grown for the manufacture of sugar and frequently used for stock feeding, is a yellowish-white beet smaller than the mangel but containing a much greater percent of sugar. In growing the sugar beet is treated like the mangel except that only six or eight inches of space is given each beet in the row.

Vilmorin's Improved Sugar. In general, the most desirable beet for the factory is the one containing the largest percentage of sugar.

Klein Wanzeleben. A little larger than Vilmorin's Improved, yielding from twelve to eighteen tons per acre, and containing about the same amount of sugar. It grows below the surface, and the green leaves are rather large and spreading.

Lane's Imperial Sugar. Good for making sugar, also stock feeding. A hardy and productive sort. Yields fourteen to sixteen tons per acre, and contains about 16 per cent of sugar.

Giant Half-Sugar. This unites the large size of the mangel with the greater feeding value of the sugar beet. The roots average ten to twelve inches, and the outline is that of a broad thick wedge. The upper portion is of a soft bright pink, shading lighter toward the bottom where the lower portion for about one-third the length is white.



BROCCOLI

Nearly allied to the cauliflower, but more hardy. The seed should be sown in this district in the early part of May, and transplanted in June; further south the sowing should be delayed until June or July, and the transplanting accordingly from August to October. In parts of the country where the thermometer does not fall below 20 or 25 degrees broccoli may be had in perfection from November until March. It succeeds best in a moist and rather cold atmosphere.

White Cape. Heads medium size, close, compact and of creamy white color. One of the most certain to head.

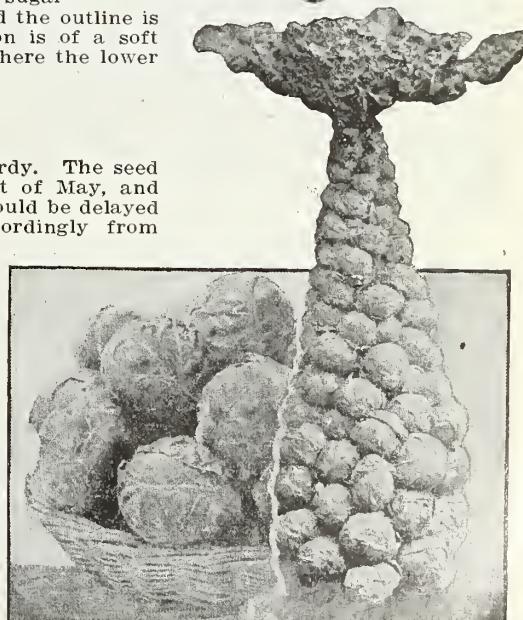
Purple Cape. Differs only in color.

BRUSSELS SPROUTS

This is one of the best vegetables for winter use, producing from the axils of the leaves an abundance of sprouts, resembling small cabbages, of excellent, mild flavor.

Tall French. Very fine.

Dwarf Improved. A variety producing compact sprouts of excellent quality.



BRUSSELS SPROUTS

CABBAGE

Culture. Cabbage grows successfully on a wide variety of soils and experience points to liming, deep plowing and heavy manuring as successful practices.

Cabbage plants when properly hardened by gradually being brought to a low temperature and the quantity of water in them diminished, will stand any frost and some considerable freezing. Yet, a cabbage plant raised at a high temperature and full of water will be killed by even a light frost. Cabbage can be grown by planting the seed heavily where the crop is to grow and thinning the plants, but a better practice is to raise the plants, without crowding, in a seed bed, which is not richer than the field to which the plants go. Transplant if possible on a cloudy day, watering the plants if the soil is dry. South of the Ohio seed is frequently planted out of doors in September and wintered in cold frames or in very Southern localities the plant is Fall set on a shady side of the furrow to avoid as much as possible the deadly freeze and thaw. For early cabbage north of the Ohio, sow seed in hot beds in February, transplant to cold frames in March, and set outside in April, or sow seed out of doors as soon as the soil can be worked in spring, covering the seed one-third inch deep. All vegetable plants are best when grown without check, so let as much soil adhere to the roots of the plant in transplanting as will hold, and set up to the first leaf. At this time the plant should have four or five pairs of leaves and be four to six inches high.

Set small varieties to be worked by hand as close as eighteen inches each way, while large late varieties, horse cultivated, need thirty or more inches each way.

Nitrate of soda will hurry the crop and if heads are so early as to begin bursting, push the head to one side far enough to tear off the roots on one side.

When club root appears, lime the soil heavily and do not plant brassica, that is, turnips, cauliflower and kindred crops upon this sick soil for two or three years.

Fight cabbage worms with Paris Green, Hellebore, or other good stomach poison.

For cabbage maggots, pour kerosene emulsion about the roots or cut tarred paper in three-inch squares, split the square to the center, and place this collar on the ground about the plant when the plant is set. For plant lice or aphis use tobacco tea or kerosene emulsion.

EARLY
JERSEY
WAKEFIELD



Early Jersey Wakefield Cabbage. We have exercised great care in the growing of this very important variety. Its uniform excellence is continually a source of gratification to us.

Large or Charleston Wakefield. This is a selection from the best early Jersey Wakefield which will average about 50 per cent larger.

Early York. Heads small, heart-shaped, firm and tender. Can be planted 15 to 18 inches apart.

Early Winingstadt. An early variety of excellent quality, not as early as the Wakefield.

Extra Early Express. An extra early sort, in which the plants are compact, with round thick leaves that form an oval head, which is astonishingly large for the size of the plants.

Early Spring Cabbage. The earliest flat head, as early as Jersey Wakefield. Yields one-third more than the early pointed heads. Solid, uniform and finely grained heads. Stem is short and extends but little into the head.

All Head Early. One of the finest early flathead cabbages.

Early Dwarf Flat Dutch. An early cabbage of good size. Heads are flat and very solid.

The Lupton. The Lupton Cabbage is the result of an effort to combine in one variety the best qualities of the second-early and the late sorts. It is a little earlier than any one of the various strains of Flat Dutch and Drumhead.

Henderson's Early Summer. A standard summer variety. We have the true stock.

Henderson's Succession. A good summer cabbage; also makes a good cabbage to succeed itself.

Fottler's Early Brunswick. An early fall variety, well known and popular.

Fottler's Improved Brunswick. An excellent shipping sort, as it does not burst or rot. Well thought of by all gardeners of Chicago.

All Seasons. A fine variety for any season, of good shape and size.

Vandergaw or Chicago Market. The Vandergaw is a very good second early cabbage. It is popular with many of the Chicago market gardeners. It comes in with the Succession and All Seasons, and forms a nice solid head.

Louisville Drumhead. This fine cabbage is very popular with the kraut makers. It is a medium late variety, forming a large solid head, which seldom bursts. It is used largely by shippers in the vicinity of Chicago who ship cabbages south.

CABBAGE

COPENHAGEN MARKET

A new early variety, popular with market gardeners. It is one of the finest early round-headed cabbages in cultivation. It is desirable on account of the remarkable characteristic of maturing the heads all at the same time, enabling the grower to gather his crop with less expense and permitting the cleaning of the land at the first cutting. The heads average about ten pounds each in weight, are hard and solid with small core. The quality is extra fine and sweet. It is a short stemmed variety, the heads nearly resting on the ground. The leaves are light green, rather small, saucer-shaped and tightly folded, making it possible to set them close together in the field.

Volga. One of the earliest main crop cabbages of superior quality. Very desirable where a large, uniformly round head with short stem and compact growth is wanted. Matures very early for a variety furnishing such large heads of excellent shape. Very hardy, good keeper.

Early Drumhead. A second early, sure heading cabbage of good quality. Plant of compact growth. Head large, thick, flattened on the top, solid, crisp and tender.

Premium Flat Dutch. This variety of late cabbage is a standard in all sections for winter use. It makes a large solid head which keeps long without bursting, and is adapted to a more varied climate than probably any other variety we grow.

Leonard's Luxemburg. This cabbage will retain its fine green color until late in the spring, and is often sold for new cabbage after being covered all winter.

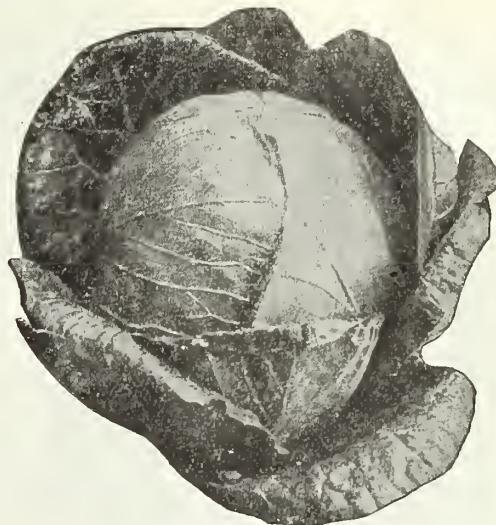
Leonard's Improved Bridgeport Drumhead. This is a standard winter variety on the Chicago markets, and is used largely for shipping south.

Sure Head. A fine variety for main crop. A good shipper and sure header.

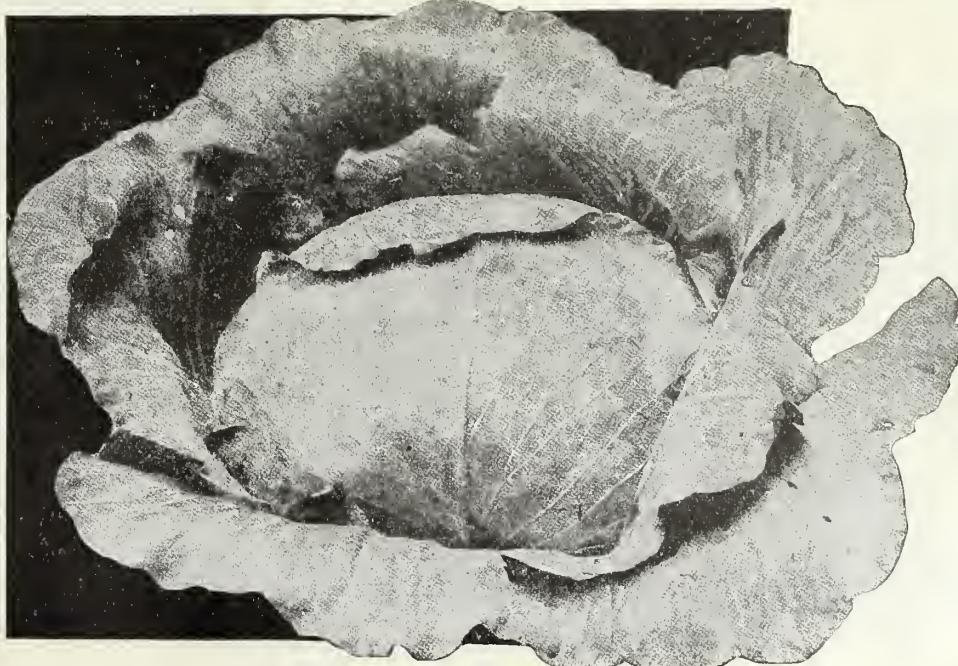
LEONARD'S FAULTLESS

IS NOW AND FOR YEARS HAS BEEN THE FAVORITE SECOND EARLY CABBAGE AT CHICAGO

The product of this seed outsells any other second early cabbage two to one on the home market. It can be marketed in the early summer, during midsummer, in the fall and early winter, making it the best all purpose variety ever introduced. It is popular alike with the grocer, kraut maker and shipper. It is possessed of earliness, large size, compactness and will produce more salable heads to the acre than any other stock we know of. It is of the succession type, but is earlier, head is rounder, sets out of the under leaves higher, has a darker color of leaf and can be planted closer.



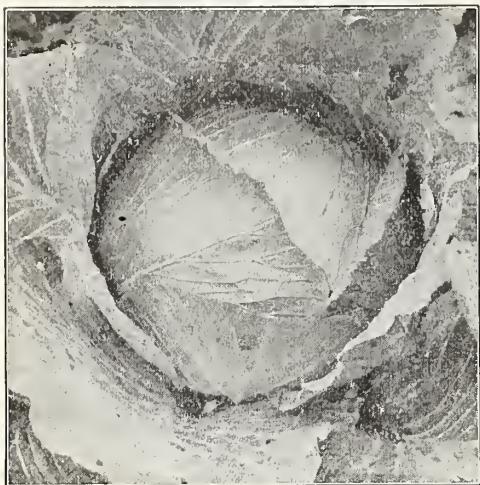
COPENHAGEN MARKET



LEONARD'S FAULTLESS CABBAGE

CABBAGE

GLORY OF ENKHUIZEN



GLORY OF ENKHUIZEN

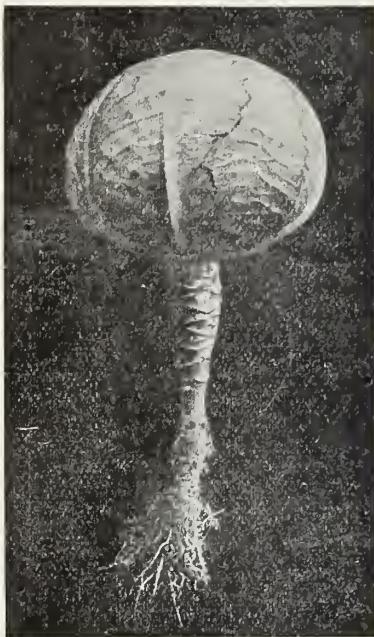
This is an excellent mid-summer variety. It comes in about a week earlier than All Seasons, makes a nice large head, has few outer leaves and can be planted close. Our tests show it to be worthy of a place among the new varieties of merit and we can recommend it as a good addition to the list.

Stonemason Drumhead. A late large heading variety; but not as fine grained as others.

Marblehead Mammoth. A large late variety of fairly good quality.

Large Late Drumhead. A late variety of large size.

Danish Ballhead Cabbage. For a winter cabbage for early spring



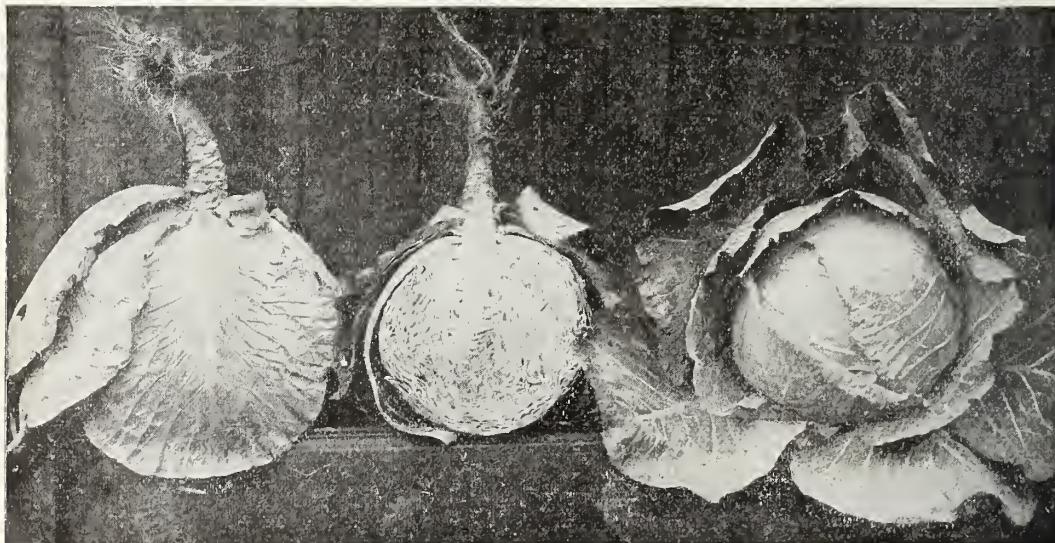
DANISH BALLHEAD

sales some of our local gardeners consider this variety excellent. It has been selected and perfected for more than fifty years by the Danish gardeners, who prize it so highly that they grow it almost exclusively for winter cabbage, and annually export large quantities of it. It is hard heading, and long keeping cabbage. Heads round as a ball, solid, fine grained, has few outer leaves, tender, crisp and of unexcelled flavor.

LEONARD'S WINTER EAST PRAIRIE SPECIAL

This new cabbage originated in that part of the Niles Center trucking region known as the **East Prairie**, which is one of the best cabbage growing sections of Chicago.

It is a direct cross of the Leonard Luxemburg and the Leonard Strain of Holland and combines the good points of both. It has the shorter stem and more lasting color of the Luxemburg with the rounder head of the Holland. The combination gives a cabbage that is superior to either. Three years ago we obtained from one of our best growers enough selected heads to give us stock seed, and from this stock we raised, during the past year, a good crop of seed.



LEONARD'S WINTER (EAST PRAIRIE SPECIAL)

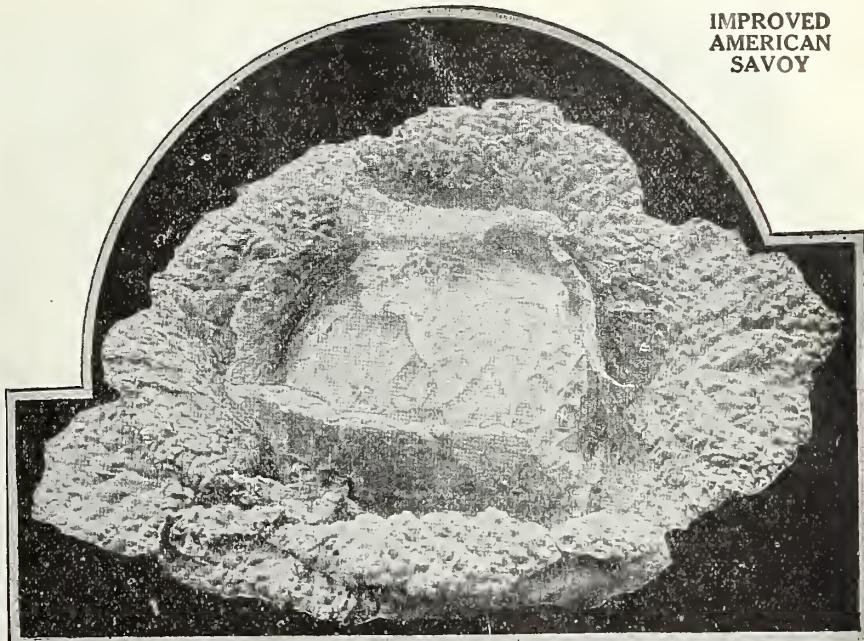
CABBAGE

Improved American Savoy. Closely approaching the cauliflower in delicacy and delicious flavor. The best of all the Savoys for general market or home use. It has a short stump, grows to a large size, is compact and solid, and is a sure header.

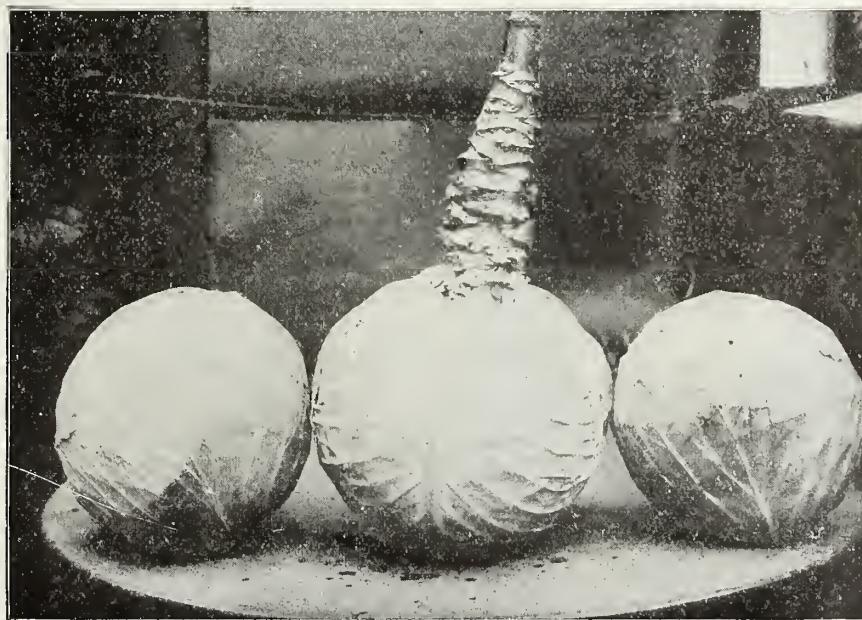
Mammoth Rock Red. The largest heading of any red sort. Heads are hard, of deep red color, quality excellent.

Red Drum-head. The standard pickling variety. A good keeper.

IMPROVED AMERICAN SAVOY

**LEONARD'S HOLLAND CABBAGE** The Heaviest Cabbage for the size of head ever introduced.

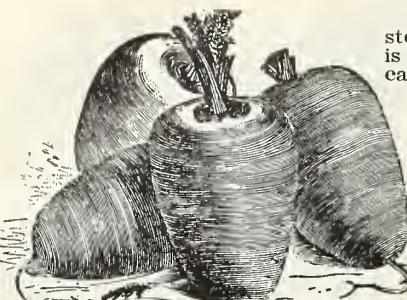
For shipping or for storing for the late spring market, this cabbage is unsurpassed. The popularity and paying qualities of this cabbage itself when it is true are points long ago decided. True Holland seed is produced at a few points only and seed grown elsewhere fails to show the proper characteristics. Since 1896 we have been fortunate in selling the seed crop of one grower of this cabbage and it has met the requirements of exacting cabbage growers of Chicago, Racine and other Holland cabbage shipping points. We do not hesitate to say that Leonard's strain of Holland cabbage is the best seed purchasable.

HOLLAND CABBAGE, SHORT STEM STRAIN

LEONARD'S STRAIN OF HOLLAND
The Heaviest Cabbage for the Size of Head Ever Found

This strain of Holland Cabbage differs from the original Leonard Strain in the height of the stem only. In all other respects it is the same. It has been bred up to meet the requirements of the grower who works heavy, rich land. The long stem of the original strain in extra heavy soil has been thought to be something of a fault and the growers have been calling for a stock that would retain all the good points of the original with the additional advantage of dwarfer habit.

CARROTS



Oxheart Carrot

full grown and while young and tender.

Half Long Nantes. Tops of medium size; roots cylindrical, smooth, bright orange; flesh orange, becoming yellow in center, but with no distinct core. Of the finest quality and one of the most symmetrical and handsome of the medium sized sorts; excellent for the market or home garden.

Early Short Horn. Excellent for early planting out of doors. Tops small, coarsely divided; roots top-shaped, but tapering abruptly to a small tap; skin orange-red.

Coreless. A fine half-long early carrot. Medium sized, even shaped and productive. Blunt base and small tap root. Small fine tops and a nice smooth skin. The flesh is a rich orange red, finely grained and very free from the woody yellow heart or core usually found in most red fleshed carrots.

Guerande, or Ox Heart. Tops small for the size of the roots which are comparatively short but often reach a diameter of 5 inches, terminating abruptly in a small tap root. Flesh bright orange, fine grained and sweet. This variety is especially desirable for soil so hard and stiff that longer rooted sorts would not thrive in it. When young excellent for table use, and when mature equally good for stock.

Chantenay. Tops medium sized; necks small; roots tapering slightly but uniformly stump rooted and smooth; color deep orange-red; flesh very crisp and tender. Although this is a medium early sort, it furnishes roots of usable size as early as any, is a heavy cropper and is undoubtedly one of the best for both the market and private garden, while its great productiveness makes it very desirable as a field sort.

Danvers. Grown largely on account of its great productiveness and adaptability to all classes of soil. Tops of medium size, coarsely divided. The smooth and handsome roots are deep orange, of medium length, tapering uniformly to a blunt point; flesh sweet, crisp, tender and of a deep orange color. Although the roots of this variety are short, they produce as large a bulk as the longer field sorts and are more easily harvested.

James Intermediate. A variety intermediate between the Danvers and Long Orange. It tapers to a point not so blunt as the Danvers and is more symmetrical and not so long as the Long Orange.

Long Orange. The most popular of the older sorts for farm use on mellow soil. An improvement obtained by years of careful selection of the best formed and deepest colored roots.

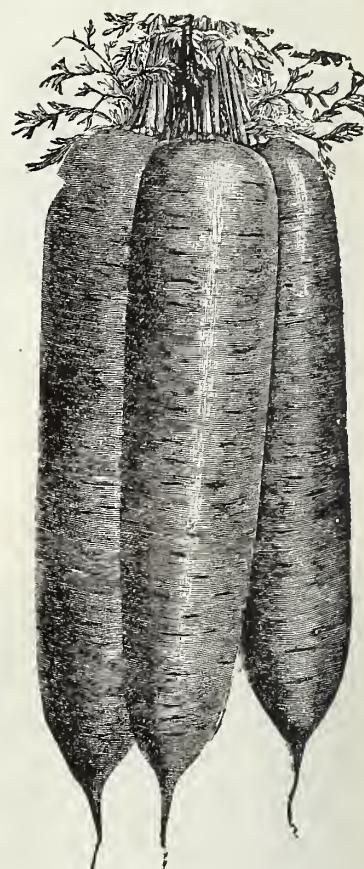
St. Valery. A good late variety. It grows long, shape uniform, tapering from a wide shoulder to a point.



DANVERS CARROT

Culture.—The carrot, whether used raw, fried, boiled or stewed, used alone or combined with other vegetables or meat is not surpassed in nutritive healthfulness by any vegetable catalogued. Plant carrots in the latitude of Chicago from the time the soil can be worked in spring till July, in one to two foot rows for hand cultivation or in thirty inch rows where a horse drawn tool is used. Use one ounce of seed to one hundred feet of row, three to four pounds to the acre, covering one-half inch deep and later thin to a four inch stand. To cultivate the rows at an early date, sow radish seed which germinates quickly with carrot seed, which germinates slowly. Do not overlook the value of this crop as a stock food.

Early French Forcing. The earliest variety in cultivation and the best suited for forcing. Tops small, finely divided. The reddish-orange colored roots are nearly round. When fully matured they are about 2 inches in diameter, but should be used before they are



CORELESS CARROT

White Belgian. Grows one-third out of the ground. Root white, green above ground, with small top. Flesh rather coarse. The roots are of large size and the variety is extensively grown for stock feeding.

Improved Short White. We think this distinct variety is destined to take first rank as a field carrot, owing to its enormous productiveness and the ease with which it can be harvested.

**GROW MORE CARROTS
THEY'RE HEALTHY**

CAULIFLOWER

Culture. Cauliflower, while it resembles cabbage and requires very much the same treatment as outlined under and for cabbage, is not so hardy as cabbage, needs more water, needs more cultivation and requires generally treatment superior to cabbage. Cauliflower cannot be expected to mature satisfactorily in hot, dry weather, and as it requires one hundred ten to one hundred fifty days for different varieties to mature, its planting should be correctly timed. Start cauliflower under glass or where cabbage plants can be wintered, winter cauliflower. One ounce gives two thousand five hundred plants and one-fourth to one-half pound of seed plants an acre. When the head or heart of cauliflower, as you may think or feel of it, called the "curd," appears, tie the outer leaves over the head or pin these leaves with wood pins or beef skewers so the leaves will shade and blanch the curd and then cut the curd before it starts to branch. Remember that all the enemies of cabbage emphatically attack cauliflower and are to be combated in a like manner.

Danish Dry Weather. We take pleasure in introducing this Cauliflower to our customers. It is from one of the best growers in Denmark and we recommend it highly to market gardeners for trial. It is claimed to be a splendid strain for a dry season and equally good in allweathers. From the reports we have regarding this stock from gardeners who have tried it we consider it a valuable addition to the list and a worthy companion to Our Famous Snowball.

Leonard's Earliest Erfurt. A variety that has given excellent satisfaction to our home gardeners. It is snow white and a sure header. Gardeners will be amply repaid by giving this variety a fair trial.

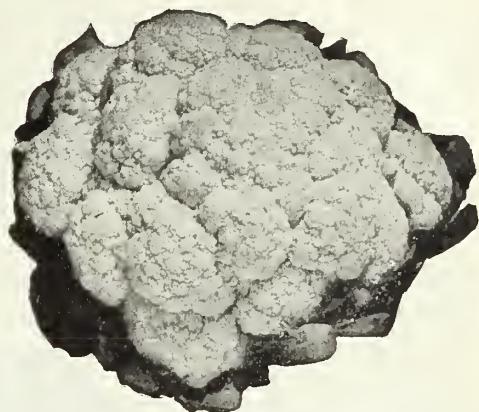
Extra Early Paris. This is a good early sort, and in a good season does well. Not as sure a header as the higher priced varieties.

Autumn Giant. A late sort of fairly good quality. Will do well under favorable conditions.

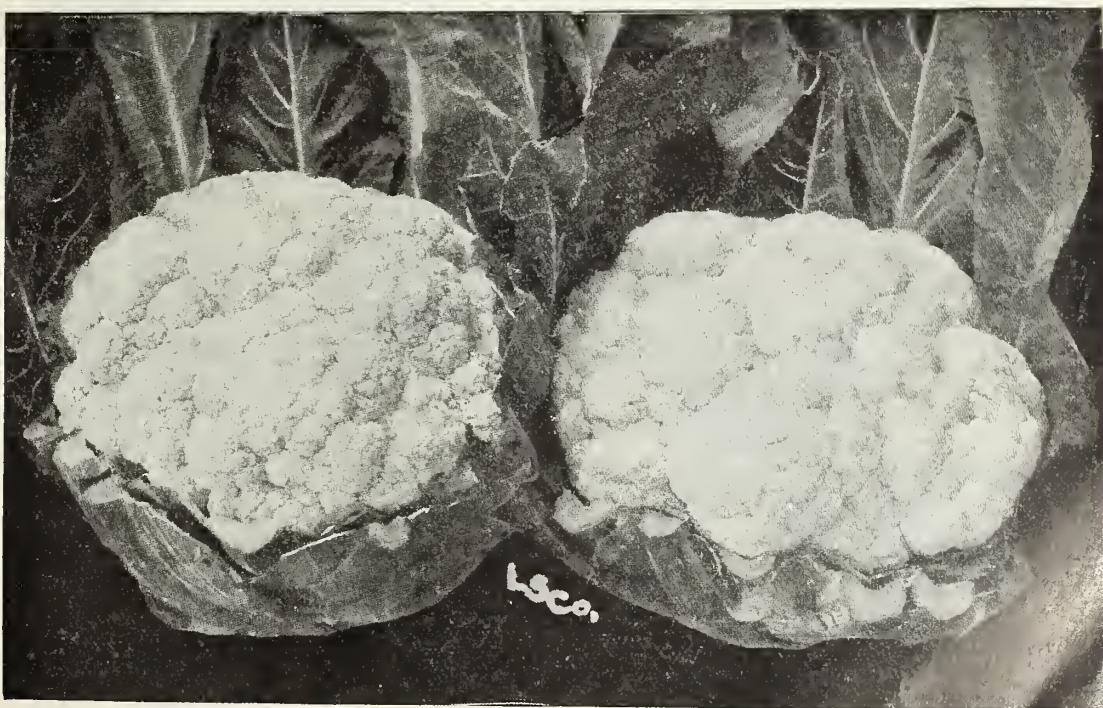
LEONARD'S SNOWBALL

The leading Cauliflower at Chicago and unquestionably the purest strain of "Snowball" Cauliflower seed to be had. Heads uniform; of desirable market size and of snowy whiteness.

After many years' competitive tests it is pronounced by expert cauliflower growers to be the best for both early and late planting. Successful frame growers of cauliflower say that under glass culture our Snowball outclasses any strain of cauliflower seed known to them. There are many expert cauliflower growers at Chicago, none better anywhere that we are aware of. Other strains of snowball seed are well known to them and this strain of ours is their favorite for early, for late and for forcing. Strong recommendations surely.



DANISH DRY WEATHER CAULIFLOWER



CAULIFLOWER—LEONARD'S SNOWBALL

CELERY

Press celery seed into the ground, do not try to cover it, and when seed is kept wet and not above 60° F. germination occurs in ten to twenty days. Celery needs four to five months from seed to use, so very early celery should be started in hotbeds after January, and when two inches high transplanted or thinned to a space of two inches. Later trim the tops to produce stocky plants and when five inches high set where plants are to mature, first trimming off one-third of the roots and leaves. Celery seed may be planted out of doors north of the Ohio in April and treated as outlined above. Given sufficient water, celery can be grown on any good garden soil and one ounce of seed gives about 6,000 plants.

When almost grown, celery must be blanched; that is, the light is excluded from the edible stock by the use of boards, earth, paper or other covering. If boards are used rows can be set as close as thirty inches, if earth blanched forty-eight inches or more is better. Set the plants six inches apart in the row and press the soil firmly about the roots. Again celery is set in solid beds eight inches each way, and the shade of the crowded bed does the blanching. With a few stalks in a garden a tile set over the plant or a wrapping of paper answers the purpose. If earth is used in blanching it should be drawn about the plant to one-third its height and repeated twice a few days apart till leaves only are exposed. Do not cultivate, hill or disturb celery when damp or rust may occur. In this hilling with earth called handling place a peg at end of row with string to it and pass string about each plant so as to prevent earth from falling into the heart during the work. To store, celery should be only partly blanched.

Celery matures best in cool moist weather, so the grower farther south may delay this planting calendar to fit his own market and convenience.

Golden Self Blanching. The best of all early self-blanching varieties. First introduced in America in 1884, this is decidedly better in quality than the White Plume. It is ready for use nearly as early, blanches as easily, and is larger in size as well as finer in quality. It is of dwarf compact habit, with thick, solid, heavily ribbed stalks which blanch easily to a clear waxy yellow.

White Plume. This is the earliest and most easily blanched, but does not keep well taken from the trenches. The plants grow rapidly and blanch easily during the summer months. Later in the fall the central stalks and leaves are of pure snowy whiteness even without earthing up.

Crawford's Half Dwarf. When blanched is of rather yellowish-white color, and is quite solid and well flavored.

Evans' Triumph. One of the best of late sorts. This variety has a very strong and vigorous plant with large, very white, crisp, brittle, tender and fine flavored stalks. It is late and requires the whole season to develop, but will keep well for a very long time.

Boston Market. For many years one of the most popular sorts in the markets of Boston. Instead of a single large heart it forms a number of smaller ones, which are very white, and remarkably tender and crisp. The best variety for light soils.

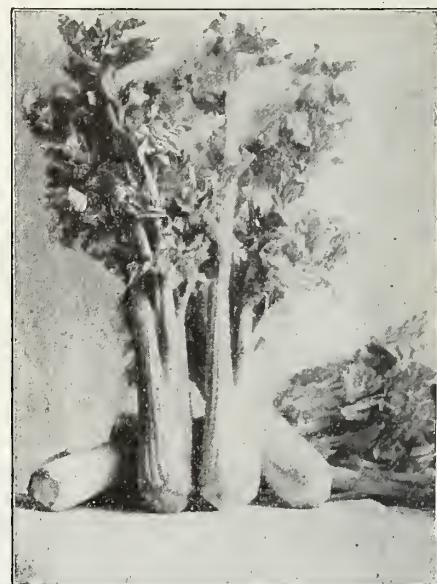
Winter Queen Celery. This is, without doubt, the most valuable variety of celery for winter and spring use ever introduced, even excelling the celebrated Perfection Heartwell as a late winter keeper. It is also much stouter, thicker and heavier, with double the amount of heart of any known celery.

Giant Pascal. This is a green leaved variety developed from the Golden Yellow Self Blanching, and is an excellent sort for fall and winter use. It blanches to a beautiful yellowish-white color, is very solid and crisp and of a fine nutty flavor.

Perfection Heartwell. A fine flavored, crisp and tender variety. The plants are a little taller than Crawford's Half Dwarf and a little later in maturing. The stalks are of medium size, round, very solid, crisp, tender, white and of exceedingly fine and nutty flavor. This has long been a standard variety and is yet one of the favorite sorts.



CELERIAC, LARGE SMOOTH PRAGUE



GOLDEN SELF BLANCHING

Dwarf Golden Heart. A variety of sturdy, dwarf habit. It is solid, an excellent keeper, and of fine, nutty flavor.

Dwarf White Kalamazoo. Dwarf, white; stiff close habit; solid, crisp.

Giant Golden Heart. This variety attains a large size, but still remains crisp and tender. It is a fine keeper and is a favorite on the Chicago market.

Soup or Cutting Celery. This variety is adapted to sowing thick in rows and cutting when three or four inches high, to use for soup flavoring.

GERMAN CELERY OR CELERIAC

Large Smooth Prague. Has a large smooth root, and is the finest of all celeriac.

Apple Shaped. Not as smooth as the above, but of good form.

Turnip Rooted. This is the ordinary and well-known variety.

CUCUMBER

Culture. Not before corn planting time plant cucumbers out of doors in drills or hills one-half inch deep. The crop may be advanced two weeks by starting in the hot bed or greenhouse on inverted four-inch sods covered with leaf mold. The plant will appear in four to eleven days and in three weeks from seeding, when the plant has two to four leaves it is ready to transplant outside.

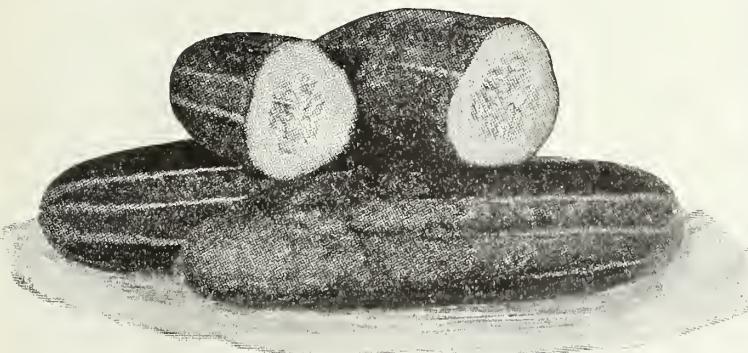
Mark the field up and down hill, then furrow across its face in a four-foot check and at each intersection drop manure or fertilizer or, better, both. Throw earth to this intersection to form an elongated hill four inches high. Plant the seed like a short drill, not haphazard; then later two strokes of the hoe cleans this short drill.

Be generous. Use a dozen seed to a hill, and after the striped beetle has his toll, thin to

three plants to a hill. To check the beetle, use on foliage, but not too heavily, road dust, ashes, soot, air slaked lime, bone flour, tobacco dust or arsenate of lead; pull earth about the stem or cover the hill with netting.

Cultivate as long as possible. Cut the cucumbers. Do not pull or bruise them and to keep the plants bearing, cucumbers must not be permitted to ripen.

Chicago or Westerfield Pickling. A variety esteemed and grown extensively for the large pickling establishments.



EVERGREEN WHITE SPINE CUCUMBER

West India Gherkin. A very small, oval, prickly sort, distinct from all others.

Early Russian. Solid, with few seeds.

Early Cluster. Vines vigorous, producing the bulk of the crop near the root and in clusters.

Japanese Climbing. While all cucumbers are running vines, yet this variety is much more creeping or climbing in its habit.

Improved Long Green. Fruit long and slim, not surpassed in quality by any variety.

Evergreen White Spine. An improved strain of the well known White Spine, and a favorite with market gardeners, both for forcing and outdoor culture.

Green Prolific or Boston Pickling. A favorite with pickle growers and commercial gardeners, and good for table use.

Nichol's Medium Green. A valuable and handsome variety, in shape between White Spine and Long Green.

Early Frame or Short Green. An excellent sort for table use and for pickling. Fruit straight, handsome, smaller at each end, bright green; flesh tender and crisp and makes fine pickles.

Jersey Pickle. Sixty days to make pickles. It is productive, and is said to "green" better than any other variety, and to "hold color."

Davis Perfect. In color, a dark glossy green; shape slim and symmetrical, with an average length of 10 to 12 inches.

Thorburn's Everbearing. Small size, very early and enormously productive, and valuable as a green pickle. It continues to flower and produce fruit until killed by frost.

Leonard's Greenhouse. This is a stock of cucumber upon which we have spent much time. The seed we offer is of our own growing and the selection is from the finest types only. The value of it to market gardeners and greenhouse men who desire a uniform, deep green, extra long cucumber, will be appreciated as soon as tried.

The Emerald. It is strictly an evergreen.

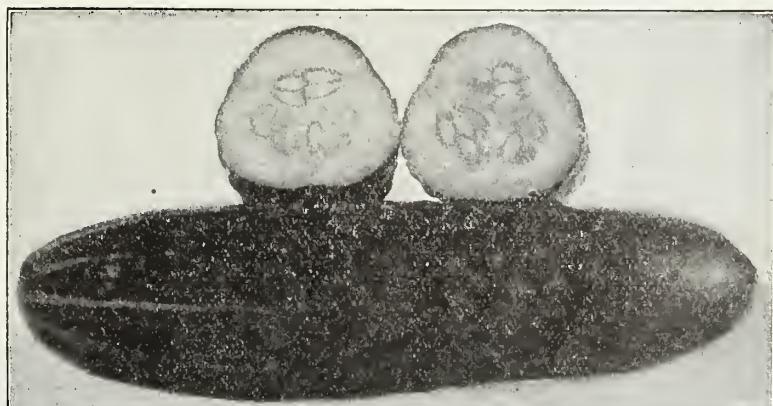
Fordhook Famous. Of the true White Spine type. Vines produce an enormous crop, being of unusually vigorous growth.

Early White Spine. One of the best sorts for table use. Vines vigorous, fruiting early and abundantly.

Arlington. A selection from the White Spine, being more pointed at each end.

Giant Pera. An exceedingly large growing sort, of excellent quality.

Cool and Crisp. A strain of White Spine somewhat like the Arlington, but larger and less symmetrical.



DAVIS PERFECT CUCUMBER

SWEET CORN

Culture. Plant corn every two weeks for a continuous supply and north of the Ohio from late April to late July. Plant corn in three or four foot drills, dropping a grain every eight or sixteen inches, or plant in hills three or four feet each way, giving six grains to the hill and later thinning to three stalks. Corn should be planted about one inch deep, planted deeper in sand than in heavy clay, planted deeper later in the year when the soil is warm; dwarf varieties closer together than the larger ones and a given quantity of seed of a small grained variety plants a larger area than does a like quantity of the large grained. One quart generally plants two hundred fifty hills and one peck is necessary to the acre. Plow deeply for corn, cultivate shallow and pick corn before it is too old. If the goodness of new corn tempts a too early planting, do not blame the resulting failure on your seedsman.

Golden Bantam Sweet Corn. A very early sweet corn with golden yellow grain, very tender and of excellent quality. The ears are six to seven inches long and of the medium size found most suitable for the table. The flavor is exceptionally rich and delicious. Our stock has been very carefully selected. Height about four feet.

White Cob Cory. This is an improvement over the Early Cory, as the cob is white, which gives it a finer appearance. It is as early as the Early Cory and of excellent quality.

Mammoth White Cory. The ears are twelve rowed, much larger than the old Cory, white cobbed, and covered with very large white grains of good quality.

Early Cory Red Cob. This variety is the favorite for first early, and no other variety has proved earlier.

Chicago Market or Ballard. This is the largest and best early corn in existence, twelve rowed, white cobbed and of exceedingly fine quality.

Premo. It is a "sixty-day" sweet corn. It not only combines all the merits of the leading early varieties, but it is also really superior to them all in size, quality and yield.

Extra Early Adams. This is an extra early field variety, but it is much used as an early market variety, being sweet and juicy.

Peep o' Day Sweet Corn. This new variety is claimed to be the Earliest Sweet Corn. It is of Minnesota origin and has been offered in the Minneapolis market from five to seven days earlier than any other well-known kind in the trade. Ears five inches long.

Early Evergreen. The ears of this new corn grow 8 inches long, are mostly 14 to 18 rows. This is a magnificent kind for market gardeners and for main crop in every home garden. It ripens 10 to 12 days in advance of Stowell's Evergreen and is equally as good for all purposes. The kernels are very sweet and tender, and when eaten from the cob break off free from husky tips so common to some otherwise fine table corns.

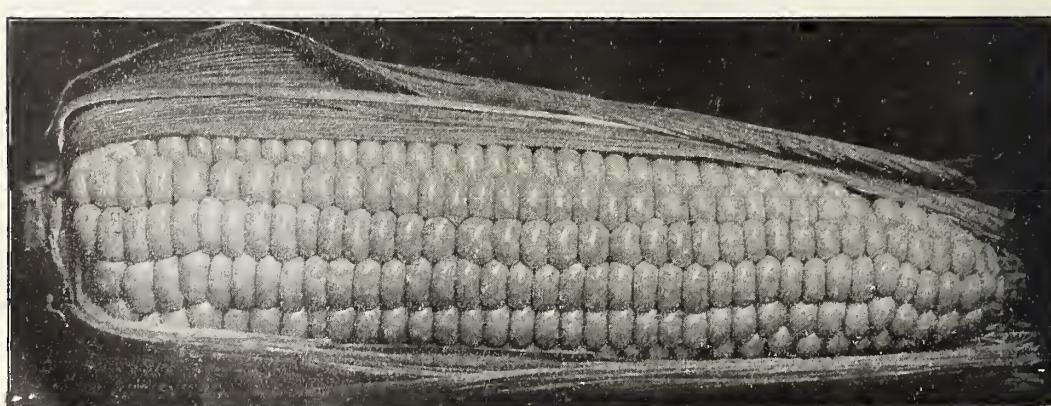
Stowell's Evergreen. This standard main crop variety excels all other late sorts in sweetness and productiveness. It is more popular than any other for canning, for marketing and for the home garden. Great care has to be exercised in the selection of stock to grow seed from, as this variety has a tendency to deterioration and a shorter grain, which makes it less sugary and desirable.

Hickox Hybrid. Earlier than Stowell's Evergreen, and makes a large, attractive ear of white and handsome grain. It is one of the best varieties for canners' use. By planting it at the same time as Stowell's Evergreen the season will be lengthened considerably, as the Hickox will be about through by the time Stowell's Evergreen comes in. Very prolific; ordinarily every stalk will have two large, fully developed ears. The best sort for drying.

Metropolitan. A new early sort. The ears are about 9 inches in length, 10 to 12 rowed, well filled to the tip with large, deep kernels, which are very sweet and tender. It is an excellent variety for market gardeners.



GOLDEN BANTAM



EARLY EVERGREEN.

SWEET CORN

Malakoff Sweet Corn. The earliest real Sweet Corn in existence; habits simple like Peep o' Day, with much better quality. The plant is very dwarf and usually produces three ears to every stalk; ears are short, three and one-half to four inches; eight rowed.

Early Iowa Sweet Corn. This is a very early Sweet Corn, almost as early as Malakoff and of much larger size. The stalks grow three feet high and usually bear two or more ears. Early Iowa is a week ahead of the Early Cory and bears ears nearly as large.

Early Minnesota. One of the standard early sorts Ready for market two weeks later than Cory or Chicago Market.

Perry's Hybrid. An early variety of splendid quality. Kernels tinged with pink when ripe, with white cob.

New Champion. This corn is unsurpassed for market use, owing to its large size and fine appearance. It is medium early, coming in at the same time as Perry's Hybrid. It is fourteen rowed and a splendid cropper.

Moore's Early Concord. A well known variety of large size, twelve rowed and of excellent quality. This makes a fine market corn.

Kendall's Early Giant. A valuable new early sweet corn. The ears grow to a tremendous size, measuring eight to ten inches long, and having ten to eighteen rows on each cob, the majority having twelve rows; kernels pure white, sweet, tender.

Crosby's Early. An early corn of large size and choice quality. It has long been a standard variety.

Old Colony. This variety is two weeks earlier than the Evergreen, and almost as large. It is considered the best and sweetest by canning factories. A fine paying variety for market.

Country Gentleman. We have a stock of this excellent sweet corn that is exceptionally good. There is no sweet corn that compares with the Country Gentleman for sweetness. It is the variety par excellence where quality is desired. Market gardeners who make a specialty of growing for hotels and high class restaurant trade use this as a main crop variety in preference to any other. For home use it will be found superior and it is very productive. The fact that it is a favorite variety with canners proves its merit.

Egyptian or Washington Market. A standard variety, in season between Evergreen and Mammoth Sugar. Very sweet and well adapted for canning.

Mammoth Sugar. A large late variety having ears of mammoth size, 14 to 20 rows. Quality excellent, not exceeded by any variety. A good canners' variety, being white grained and very uniform. A week later than Stowell's Evergreen.

Black Mexican. This corn, when in condition for the table, cooks remarkably white; but the ripe grain is black or bluish-black. It is surpassed by none in tenderness. For family use it is considered by many the most desirable of the medium late sorts. It does especially well for second early in the South.

Zig-zag Evergreen. This fine new strain possesses the distinct characteristics which have made Stowell's Evergreen so deservedly the favorite for main crop, but produces ears fit to use from one week to ten days earlier.

White Evergreen. This is a high-bred white type Stowell's Evergreen. It has been developed by careful work only the finest white-eared product being saved and selected each season. The stalks are of strong, vigorous growth, six to seven feet high.

White Mexican Sweet Corn. White Mexican is a heavy yielding, early maturing Sweet Corn. It ranks in a class with White Cob Cory and is a better yielder. Height 4 feet; ear about six and one-half inches long. Quality good.

Early Mammoth. Closely resembles the Late Mammoth, but is a little smaller, and about two weeks earlier. Of good size and quality.

Leonard's Sweet Corn, Narrow Grain. See pages 50 and 51.



STOWELL'S EVERGREEN

DOES GARDENING PAY?

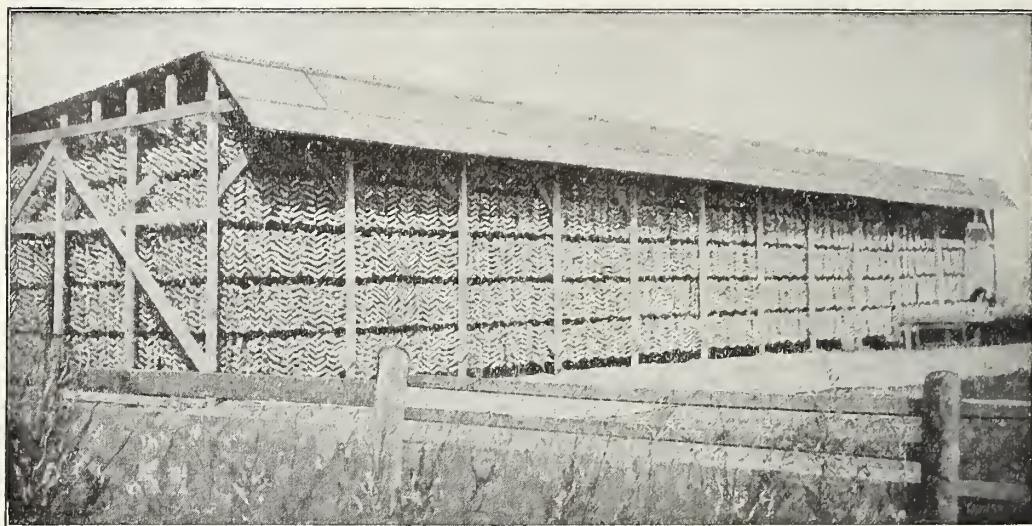
How many dollars will you spend this year for vegetables?

How many hours can you spend this year in the garden?

If labor is what you sell, why not sell it to yourself?

Get your pencil. Suppose you begin gardening April fifteenth and spend thirty minutes every work day in your garden till August fifteenth. On August fifteenth your gardening efforts would be over except the joy of a continual harvest and you would have spent about fifty hours at this work. At three dollars a day for your labor the garden has cost fifteen dollars. The seed to plant the garden would not cost more than you would have had to pay to have the weeds cut if you had not gardened. Vegetables can be placed upon your table from this garden every work day and Sunday too from June first till Christmas,—two hundred days. If you use eight cents worth a day from the garden for yourself and family during that time, you have received sixteen dollars. That's thirty cents an hour for your labor and the gift of a dollar. If your garden is 44x100 feet you are growing vegetables on one-tenth of an acre and making land pay at one hundred and sixty dollars an acre. As many gardeners do very much better than these figures you have during a part of each day better than a three dollar a day job in your garden.

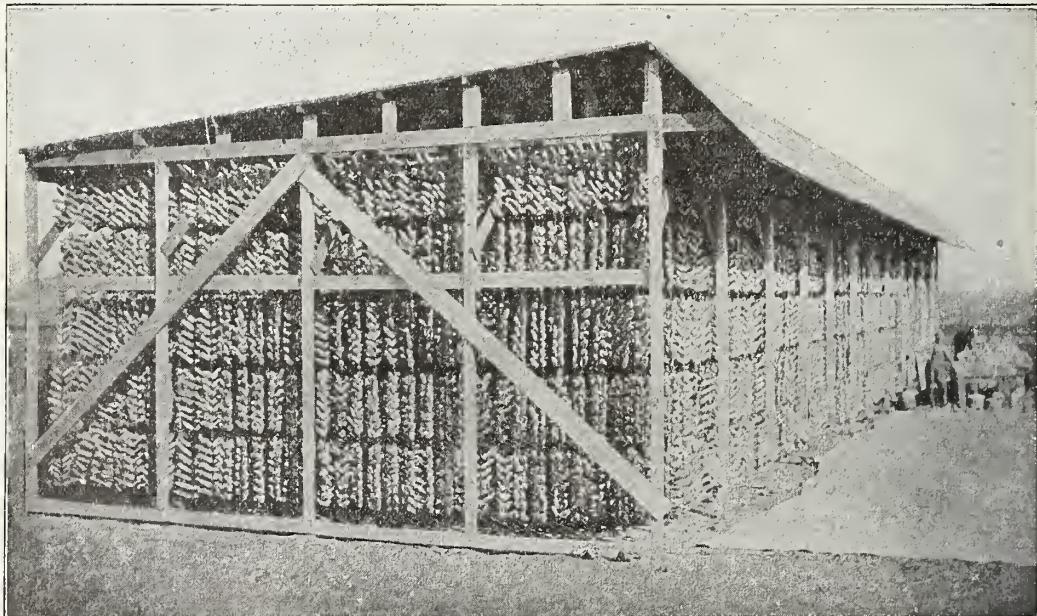
SWEET CORN



SIDE VIEW OF ONE OF OUR DRYING SHEDS, 200,000 EARS

LEONARD'S SWEET CORN, NARROW GRAIN

This New Type of Sweet Corn is a stock worked up by S. F. Leonard after several years of experimenting. In it we feel that we have something vastly superior to the old wide grain Evergreen. The ear is as large as the Stowell's Evergreen and averages more rows to the ear. The cob is small in comparison to the size of the ear, and the kernels are very long, narrow and remarkably free from starch. The rows are uniformly straight and the ear holds its evenness from butt to tip more uniformly than any other type of Evergreen.



FRONT VIEW OF ONE OF OUR DRYING SHEDS

SWEET CORN

LEONARD'S SWEET CORN, NARROW GRAIN.

Top Row—KERNELS OF LEONARD'S SWEET CORN, NARROW GRAIN—Natural Size



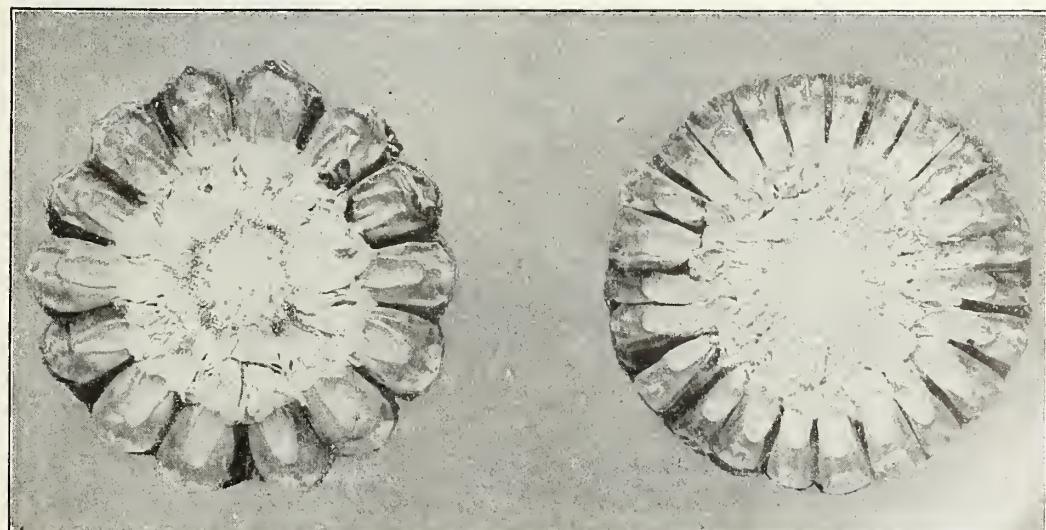
Bottom Row—KERNELS OF STOWELL'S EVERGREEN—Natural Size

As will be seen in the comparative view, the kernels of this Leonard's Sweet Corn of the Narrow Grain Type are much longer and narrower than the kernels of Stowell's Evergreen. The natural size of the kernels of each are shown in the picture, and a section of the ears of both kinds are shown in the view given below. The comparison is the best method we can think of to show the difference between the two stocks. The ears shown are the average run. The Stowell's Evergreen has 14 rows and the Leonard Sweet Corn has 24 rows.

This Corn has proved itself ideal for canners' purposes in place of Country Gentleman, as it packs over a longer period than the Country Gentleman, makes better quality and is more easily contracted with the farmer growing for the factory on account of the size of stalk, which equals Stowell's in height. Mr. Leonard started selecting and working on this Corn some years ago, having in mind the type he wanted to attain. Each succeeding crop has been selected and worked upon with this end in view. In this way, the desired type was established. In the last three years canning factories throughout the country have in competitive tests of Corn found Leonard's Sweet Corn incomparable for their purposes. These tests have not been in a small way, but vast fields have been grown for superior packing from Maine to Iowa. The canner who ordered, re-ordered—that's the final test. What you might take at first glance to be a novelty has become for these people a necessity. Leonard's Sweet Corn has become a standard variety.

The demand for this Corn has been so great that our supply for 1916, though large, has practically been exhausted. The man who buys seed early has with him quite a few advantages.

The canner giving much thought to varieties was the first to recognize the superiority of Leonard's Sweet Corn, narrow grain. It is also equally serviceable for the trucker or the amateur.



STOWELL'S EVERGREEN
Natural Size

LEONARD'S SWEET CORN, NARROW GRAIN
Natural Size

CARDOON

Smooth, Solid Cardoon. Grown for the mid-ribs of the leaves which possess an unusual delicacy of flavor when thoroughly blanched and used in the same manner as celery. The root is also excellent when properly cooked.

CHERVIL

A hardy annual worthy of more general use for flavoring and garnishing. The curled variety is even more beautiful than parsley.

Curled. Greatly superior to the old plain variety, being earlier, more handsome, and having fully as fine perfume and flavor.

CHICORY

Witloof Chicory or French Endive. Grown for its use as a salad, the blanched head resembling Cos Lettuce in appearance. The seed planted in late spring give parsnip like roots by late autumn. The roots are then placed in earth where there is some heat, as in the green house boiler room, or a warm cellar. The root then throws out the blanched salad head.

Large-rooted, or Coffee. Our stock is the improved type, with very much larger, smoother, whiter and proportionately shorter roots than the old kind. The dried and prepared roots are used quite extensively as a substitute or adulterant for coffee and the leaves used as a salad.



WITLOOF



CORN SALAD

CORN SALAD

Fetticus, or Lamb's Lettuce. This small salad is used during the winter and spring months as a substitute for lettuce, and is also cooked and used like Spinach. In warm weather the plants will mature in four to six weeks. Sow the seed in shallow drills about one foot apart. If the soil is dry it should be firmly pressed over the seed in order to secure prompt germination. On the approach of severe cold weather, cover with straw or coarse litter. Like most salad plants, greatly improved if sown on very rich soil; indeed, the ground can scarcely be made too rich for them.

COLLARDS

A form of cabbage or kale much grown throughout the south. It produces large leaves and at times a modified head on a tall stout stem. Freezing does not injure but rather improves the quality.

Georgia, Southern or Creole. We offer the true white or green stemmed sort.

CRESS

Culture. True Water Cress can be easily grown by sowing the seed broadcast on garden soil and keeping the soil very wet till the plants are big enough to transplant to shallow indentations about five inches deep here and there along the sides of a clean flowing stream. There it will continue to spread by the lengthening of its roots, also by reseeding and requires no further care. The crop can be grown to maturity in wet garden soil, or the seed can be sown directly to the mud along the stream, but with lesser measures of success. April or September is a good time to plant these minute seeds, and this aquatic prefers to stand with its roots and most of its stems submerged. Cutting can begin in about sixty days, and a little later frequent cutting, using a sharp knife, will stimulate plant growth.

True Water Cress.

Curled or Pepper Grass. A pungent, quick-growing plant that poorly parades the water cress flavor, can be grown in any garden soil as soon as the ground can be worked. Plant one-half inch deep in one foot rows, thinning the plants to four inches.



WATER CRESS

DANDELION

Cultivated or French Common. This is considered the best by many and is not at all the same as our wild dandelion, being greatly improved by careful selection.

Improved Thick Leaved. One of the earliest and best greens in cultivation.

It is well known that LEONARD'S SEEDS, both Vegetable and Flower, are standard goods. We have the largest Market Garden trade of any of the Seed Houses. The market gardener is the most critical of all seed buyers and the Seed House that commands the trade of this class of buyers is in the best possible position to suit the requirements of all others.

EGG PLANT

Culture. Treat the Egg Plant like a tender tomato that required even a longer period to mature. After cabbage plants are out of the hot-bed or greenhouse, which is April north of the Ohio, sow egg plant, keeping even the night temperature above seventy degrees. One ounce of seed gives two thousand plants, and four pounds plants an acre. Transplant later to pots or to a three or four-inch stand, and when corn is shoe high, put egg plant outside on rich, well drained land. Set the plants two feet apart in four foot rows, shading or watering the plants if it is sunny or dry.

Leonard's Improved New York Purple (Spineless.) Very large and smooth, fine dark color. Ours is the spineless plant, most preferred by our market gardeners, both east and west. We have made the most careful selection possible of our stock plants, and know it to be unsurpassed for the market.

Black Pekin. A fine variety, bearing large, round, deep purple fruits, fine grained, and of superior quality.

Early Long Purple. Early hardy and productive; excellent for the table.



LEONARD'S IMPROVED NEW YORK PURPLE EGG PLANT

ENDIVE

Culture. Endive, or winter lettuce, used as a salad, as greens or garnishing, is usually planted one-fourth inch deep in a seed bed in mid-summer, and when convenient after a month transplanted to stand one foot apart in eighteen-inch rows. When almost grown and about two weeks before ready to use, it is blanched by tying the leaves together with soft cord, or the blanching is by turning a flower pot or tile over each plant, or by blanching with earth, like celery. The blanching removes the green plant's acrid taste. The plant may be, but seldom is, used as an early spring crop. Three to five pounds of seed plants an acre.

Green Curled. Beautifully curled, tender and crisp.

Moss Curled. More finely curled, and a heavier and more dense plant than Green Curled.

White Curled. Very tender when cut young; blanches readily.

Broad-Leaved Batavian. (Escarrole.) This variety is chiefly used in soups and stews; requires to be tied up in blanching.

HORSE RADISH of the roots.

GARLIC A member of the onion family with a strong penetrating odor; not propagated by seed, but by dividing the bulb.

MEDICINAL, AROMATIC AND POT HERBS

In borders and irregular parts of the garden it will prove profitable and pleasurable to grow a few herbs. Their use gives new and unusual flavors, pleasing aromas and perfumes, and some medicines that are as serviceable as can be purchased. Exact cultural directions suited to them all is impossible. Give them generally the care given vegetables or flowers. Where the foliage is to be used, cut the young stems on a dry day, wilt in the sun, dry in the shade and either hang up in bunches or store in air-tight glass jars.

Anise. A hardy annual used for medicinal purposes and for seasoning and flavoring.

Balm. A perennial used for a medicinal tea, and a beverage of lemon-like flavor.

Basil, Sweet. An annual used for seasoning sauces, soups and meats.

Borage. A hardy annual grown for bee pasture; also used as a flavoring.

Caraway. In its second year this biennial produces seed for flavoring pastry, etc.

Coriander. An annual grown for the use of its seed in confectionery and liquors.

Dill. The seed and foliage of this annual is used for flavoring, as in "dill pickles."

Fennel, Sweet or Common. Foliage used as a salad and the seed for flavoring.

Fennel, Florene. An annual grown for the blanched base of its stem, which when cooked has a sweet taste, a delicate odor and somewhat resembles celery.

Horehound. The leaves of this perennial are used in medicines for coughs and colds.

Hyssop. A perennial grown for the use of its foliage in medicine.

Lavender. A hardy perennial grown for its fragrance.

Sweet Marjoram. Treated as an annual and the younger foliage used for seasoning.

Rosemary. A fragrant perennial used for seasoning and medicinal purposes.

Rue. A hardy perennial to be used with caution medicinally.

Saffron. An annual used for seasoning, coloring and making cosmetics.

Sage. The well known hardy perennial used for seasoning.

Savory, Summer. The foliage and flowers of this annual used for flavoring and seasoning.

Thyme. The leaves of this perennial are used for seasoning and medicinally.

KALE OR BORECOLE

Culture. In Virginia, kale planted in late August has some of its plants thinned out and sent to market within sixty days and the cutting then continues until the field is clean in April. Further north, kale is treated like the cabbage; that is, planted early in spring in hot beds or out of doors, and it is used in the fall when light frosts have improved it. Kale is sown in two to three-foot drills and then thinned to six to twenty-four inches, according to varieties. One ounce sows generously one hundred yards and four pounds plants an acre.

Tall Green Curled Scotch. This is very hardy and is not injured by a moderate frost. About 30 inches tall, with an abundance of dark green leaves which are densely curled and cut, forming a very beautiful plant. It stands the winters in the Middle States without any protection.

Dwarf Curled Scotch. Plant low and compact, but with large, bright, deep green leaves, curled, cut and crimped until the whole plant resembles a bunch of moss. One

of the best sorts for use, and when well grown and cooked is one of the most palatable of vegetables.

Siberian. Sometimes called Sprouts and German Greens. In this variety the very large, green leaves are comparatively plain in the center but coarsely cut and frilled on the edge. The plant is low but spreading and very hardy.

German Dwarf Purple. Similar to the Dwarf Curled Scotch, but of a rich purple color.



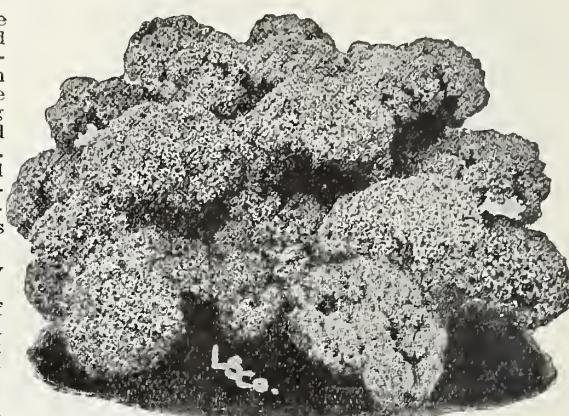
EARLY WHITE VIENNA
KOHL-RABI

London Flag. This is the variety generally cultivated in this country. It is hardy and of good quality.

Large American Flag. A variety which has become very popular with some market gardeners on account of its being larger than the London Flag.

Large Ronen. Stem very large but comparatively short; the leaf is very broad, covered with whitish bloom. Stands a long time in condition for use.

Musselburg. The largest variety, often 3 inches in diameter and becoming very white and tender. A hardy and desirable sort.



DWARFED CURLED SCOTCH KALE

KOHL-RABI

Culture. This relative of the cabbage, that looks like a turnip that grew above the ground, can be treated very much as either cabbage or turnips. One ounce sows one hundred yards and four pounds plants the acre. Sow in eighteen to twenty-four-inch rows, thin to four inches apart and use for the table when small. Like the turnip, we cannot expect good kohlrabi in the summer heat, but a planting made about August first north of the Ohio will give a crop for winter storage. Do not overlook the value of this plant as a stock food.

Earliest Erfurt. A white, tender variety, with a smooth root and very short top; the best variety for outdoor culture.

Early White Vienna. The finest for market. Flesh white and tender.

Early Purple Vienna. Bluish purple; similar to the above, except in color.

Large Green. Hardy, quite late, and used for feeding stock. Bulbs large, weighing 8 to 10 pounds, whitish green in color; leaves large and numerous.

LEEK

Culture. This mild member of the onion family is used in soups and salads. Sow one ounce to one hundred feet of row or four or five pounds to the acre, one-half inch deep, as early as the soil can be worked in spring. Thin the plants to a stand of four to six inches in the twelve to eighteen-inch rows. It is advisable to throw earth to the plant to blanch it, very much as celery is blanched.

Buy Seed in Bulk—The Better Way

LETTUCE

Culture. As lettuce will stand considerable freezing, it may be seeded or transplanted out-of-doors as soon as the soil can be worked in spring. For a succession, replant every three weeks till within sixty days of freezing weather. The soil cannot be made too rich and this crop must be grown quickly and unchecked to be of superior quality. North of the Ohio lettuce is frequently started under glass like cabbage in hot beds; in February transplanted to cold frames and hardened to be set out-of-doors in early April. In more southern or milder winter climates, lettuce may be sown in autumn, protected with sash or coarse litter and in late winter transplanted, or thinned and matured where planted. When the crop is matured under glass it requires much ventilation and little heat, and beware of too much water in cloudy weather. In the summer's heat canvas or a slatted half shade and plenty of water is of value. One ounce of seed gives two thousand plants and three pounds plants an acre. In the seed bed drop twenty-five seed to the foot, and gently rake it in; failure may result from too deep a covering. Mature lettuce in twelve to eighteen inch rows, giving the loose leaf varieties three to eight inches in the row and head lettuce six to twelve inches.

Black Seeded Simpson. We have a fine strain of this lettuce carefully selected. This is the most popular loose-leaved sort.

Early Curled Simpson White Seed. Forms a close, compact mass of curly yellowish green leaves. Earlier than the head varieties.

Grand Rapids Foreing. Preferred by a great many to the Black Seeded Simpson, on account of being a tougher leaved lettuce.

Early Curled Silesia. A very early tender sort, with fine curled leaves.

Boston Curled. Curled leaves of good quality, a popular variety among eastern growers.

May King. Plant this lettuce for the first early head lettuce. It is equally good for outdoor planting or forcing. The outer leaves have a slightly brownish tinge, while the heart is a beautiful yellow, very crisp and tender.



THE LEONARD

THE LEONARD LETTUCE

—cabbage head—is the head lettuce for early and late summer planting. Produces a very fine early large solid head, color a fine light green, free from spots. Small ribbed leaves that are very tender and crisp. Too much cannot be said about our stock, which is very true to type. As this variety withstands the heat far better than Big Boston, it is a very great favorite with our market gardeners for early and late planting.

Hubbard Market. A large heading variety good for either forcing or sowing in open ground.

St. Louis Head. The most popular and satisfactory head lettuce. It forms a fine head, is tender and crisp, and is very slow to run to seed.

Silver Ball. A good hard heading variety, and withstands the summer heat well.

Mammoth Black Seeded Butter. Resembles the old Black Seeded Butter very closely, but much larger, forming an enormous head, every part of which is tender, crisp and sweet. It is a good sort for all seasons.

Iceberg. A beautiful lettuce. Large, curly leaves of bright, light green, with a very slight reddish tinge at the edges.

Salamander. This will stand the summer heat better than any other variety.

Boston Market. Also called White Seeded

Tennis Ball. The best of the head varieties for forcing.

Brown Dutch. This variety is a good variety. Makes a round head tinged with red.

The Deaeou. A magnificent butter head lettuce.

Prize Head. A good header. Solid and large.

California Cream Butter. A grand, good butter lettuce.

Buttereup. A head lettuce of fine quality. Inside of head is waxy, crisp and delicious.

New York. Is of unusual size and solidity of head.

Big Boston. This variety is identical in color, shape and general appearance with the famous Boston Market Lettuce, but is double the size.

Hanson. Heads very large, from two to three pounds each; hearts quickly and stands the summer well; quality excellent.

All Seasons. One of the best 'all head' lettuces.

Denver Market. This is a fine crisp, crimped head variety.

Paris White Cos. The Cos lettuce differs entirely in shape from the other varieties, the head being elongated and of conical form.

Winter Lettuce. A compact, solid, hardy lettuce for late winter or early spring use.

MUSK MELONS—Green Fleshed

Culture. Musk melon, water melon, cucumbers, gourds and squash are known as cucurbits. For musk melon follow our cultural directions for cucumber except that where a robust growing variety of musk melon is grown, a space of as much as six by six feet is sometimes required between hills. One ounce of seed plants fifty hills, and three pounds plants an acre. The crop, or the last planting for a succession, should be in by June, north of the Ohio. While not necessary, it is advisable to pinch off the branches of musk melon if a quicker matured or a larger or a better fruit is required. Pick the melon when it parts from the stem without difficulty and store a few days in a cool room.



Early Hackensack. The fruits are nearly two weeks earlier than Hackensack, medium to large sized, nearly round or somewhat flattened, evenly and deeply ribbed and with very coarse netting. The skin is green, slightly tinged with yellow as the fruits mature. The flesh is green, a little coarse but juicy and sweet.

Hackensack, or Turk's Cap. A very large, green fleshed melon. The vines are hardy, vigorous and productive. The fruits are nearly round, usually somewhat flattened; ribs large and of irregular width, densely covered with coarse netting.

Champion Market. The fruits are large, round or slightly oval, slightly ribbed and covered with dense netting. The flesh is green, very thick and sweet.

Bay View. Fruits are of largest size, long, distinctly ribbed and covered with coarse netting. The skin is green, becoming slightly yellow as fruits ripen. The flesh is green, thick and of fine flavor.

Montreal Market. The very largest of all nutmeg sorts. The fruits are round, flattened at the ends and have very broad ribs. Flesh is green, fine quality.



CHICAGO MARKET MUSK MELON

Rocky Ford. This has become one of the most popular of small or crate melons and is shipped in large quantities from Colorado and Arizona. The vines are vigorous and productive. The fruits are oval, slightly ribbed, densely covered with fine netting. Flesh green, very sweet and highly flavored.

Extra Early Citron. A small, round melon, valuable on account of its extreme earliness, hardiness and great productiveness.

Jenny Lind. Vines rather small but vigorous and productive. Fruits small, somewhat flattened, deeply ribbed and well netted. Flesh green and exceedingly sweet.

Skillman's Netted. An excellent early melon with fine, tender flesh.

Netted Gem. The best early melon known. Shipped to every market of note, in great quantities, every year. Medium size, but of excellent flavor.



EARLY HACKENSACK

Baltimore, or Acme. The fruits are medium sized, oval or long oval, slightly pointed at stem end, slightly ribbed, and are covered when ripe with coarse netting. The flesh is thick, green, well flavored and sweet. This variety is a very productive, sure cropper of good quality.

Chicago Market. This we consider the best Nutmeg for earliness of maturity, large and uniform size, thickly netted skin, small seed cavity, deep green flesh, juicy delicious flavor and freedom from rot. A favorite with all who prefer a green flesh sort.

Garden Lemon. An excellent fruit for preserving. Has a decided acid flavor.

Vine Peach. Very similar to Garden Lemon, and used for preserving.

Ornamental Pomegranate. A very interesting and handsome fruited vegetable. Fruit similar to Vine Peach in size, color mottled and having a rich perfume.

MUSK MELONS—Yellow Fleshed



BURRELL GEM

Ordway. Under the name of Ordway a golden meated Rocky Ford has been shipped into the Chicago market by the Colorado melon growers. It does not differ materially from the Burrell Gem.

Burrell Gem. The originator says: "The new Rocky Ford Melon with Golden meat." This describes the melon fully, as in the outside appearance it looks just as the best types of green fleshed Gems, or Rocky Fords do, but has orange flesh inside.

Admiral Togo. This is an orange fleshed netted Gem or Rocky Ford.

The Princess. This melon is one of the best for the home garden. In shape it is nearly round, with heavy netted dark green skin. The flesh is salmon color, thick, sweet and luscious.

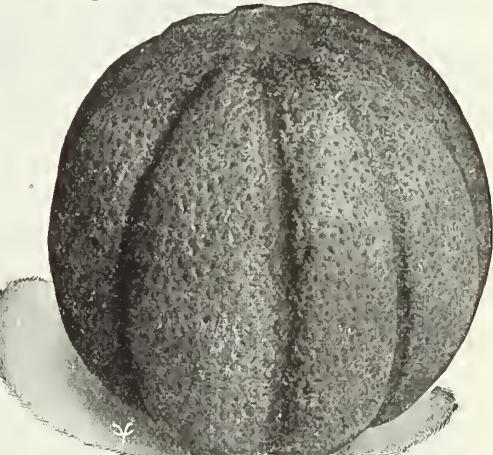
The Osage. Is of medium size, oval in form, dark green in color, somewhat netted and slightly ribbed. The flesh is extremely and uni-

Emerald Gem. A very early, yellow fleshed melon of small to medium size. One of the very best for the home garden. Vines vigorous and productive. Fruits globular or slightly flattened, somewhat irregularly ribbed and very slightly netted.

Surprise. Vines hardy and productive; fruit medium to large size, oval, distinctly ribbed, covered with slight patches of netting; skin light yellow when mature. Flesh deep salmon color and of excellent quality.

Petoskey, or Paul Rose. A yellow fleshed sort of suitable size for a crate melon and of excellent quality. Vines vigorous and productive. Fruits oval, slightly ribbed and densely netted.

Defender. This is one of the best yellow fleshed sorts and in some respects is far superior to any of this class. The fruit is medium sized, oval in shape, slightly ribbed, covered with gray netting. The flesh is firm, fine grained, rich, deep yellow, darker than that of the Osage and of higher flavor.



HOODOO MELON

formly thick, of firm texture, rich salmon in color; highly flavored and delicious to the rind. Cavity very small. It is a remarkable keeper and a good shipping melon.

Hoodoo. A new orange fleshed variety, ideal as a shipping melon and of the very finest quality. Vine vigorous, remarkably blight resisting and very productive. Fruits uniformly of medium size. Netting exceptionally fine and dense, extending practically over the entire surface.

TIP TOP MUSK MELON

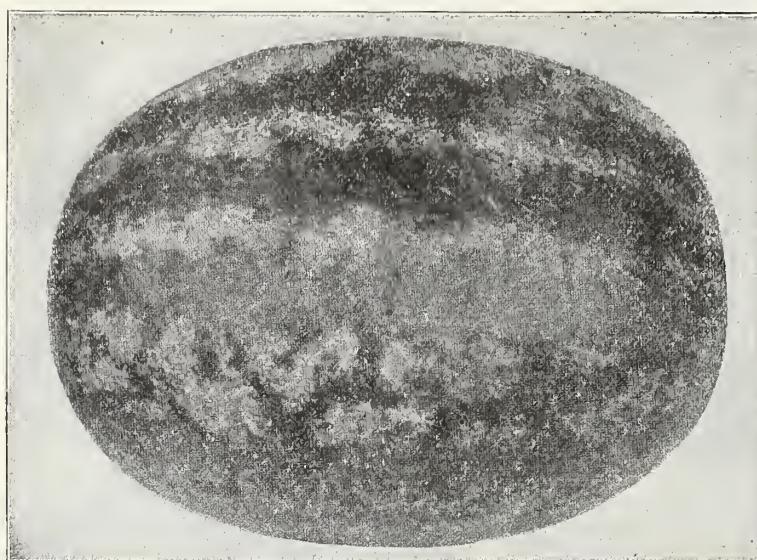
The illustration shows a specimen of our strain of this popular melon. This very productive melon is of medium to large size, nearly round, slightly ribbed and fairly well covered with shallow netting. The flesh is deep yellow in color. The universal testimony of every one using Tip Top is that every fruit produced, whether big or little, early or late in the season, is a good one—sweet, juicy, finest flavor, firm, but not hard-fleshed, eatable to the very coating.

TIP TOP MUSK MELON



WATER MELON

Culture. For water melon, follow our cultural directions for cucumbers, except that it is necessary to give the water melon a space of eight to ten feet between hills, and thin the plants to two to the hill. One ounce plants twenty-five hills and three pounds of seed plants an acre.



KOLB'S GEM WATER MELON

variety where the season is short. It is hardy, productive and the largest of the early kinds.

Phinney's Early. Few, if any, of the early sorts of recent introduction surpass this old favorite. It is first to ripen, of good size and productive.

Cole's Early. Very hardy, a sure cropper, and extremely delicate in texture of flesh, which is of a dark red color, possessing all the desirable features. Medium size, nearly round; rind green, striped with lighter shades.

Peerless. The old but extremely popular home market melon. There is none better, nor a more handsome melon grown.

Mountain Sweet. A large oval variety.

Pride of Georgia. Round, large, crisp; bright red flesh.

Jumbo. Immense in size. The common weight of this melon is 60 to 80 pounds. In shape it is nearly round; color solid dark green.

Halbert Honey. Equal to the Kleckley Sweet, of 20 inches oblong form, almost equally round at each end. Rind dark green. Profitable locally, but not a good shipper.

Bradford. Shape long, color dark, with darker wavy bands, flesh melting and excellent.

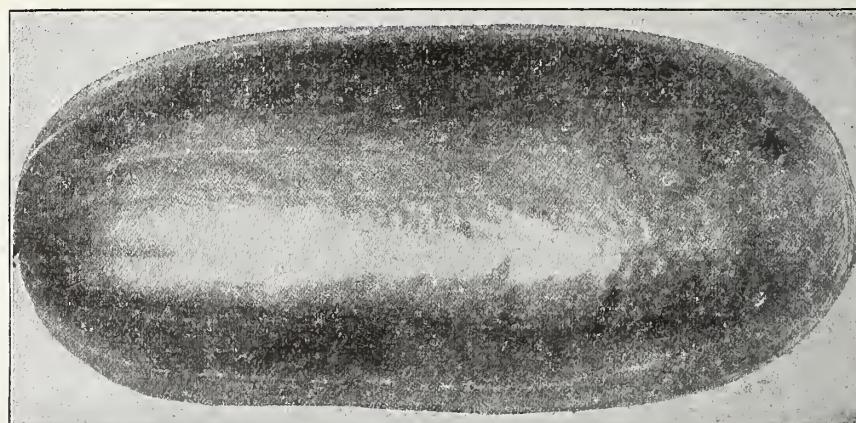
Triumph Water Melon. It is a cross between Duke Jones and Kolb's Gem. It has the handsome appearance and dark green color of the former and the shipping qualities of the Gem; medium season, very prolific, deliciously sweet and of enormous size.

Seminole. An exceedingly productive variety, large size. Fruit oblong in shape; flesh solid, ripening clear up to the rind.

Black Diamond. A cross between Kolb's Gem and Hoosier King.

Tom Watson Water Melon.

Originated near Augusta, Ga., a few years ago; very prolific—six car-loads on ten acres often made; shape, long; color, dark, deep green, no stripes; large—often times 50 to 60 lbs.; two melons to the vine; no ends, no necks to rot; better shipper than Rattlesnake; tougher rind; flesh deep red; seeds white, smeared with yellow.



TOM WATSON WATER MELON

Kolb's Gem. Vines of medium size, but remarkably vigorous and healthy. Leaves of medium size, deeply cut with a peculiar frilled edge. Fruit of the largest size, round or slightly oval, marked with irregular mottled stripes of dark and light green. Outer rind or shell exceedingly hard and firm, making it a good sort for shipping long distances. Flesh bright red, solid, a little coarse but sweet and tender.

Vick's Early. This variety is prized for its earliness. It is oblong in shape, smooth with a very dark skin, rather small in size; flesh bright pink, solid and sweet.

Harris Earliest Water Melon. The best of the extra early sorts. Fruit slightly oval with irregular mottled stripes of light and dark green. Flesh bright red, sweet and tender. A desirable

WATER MELON

Eden. This melon by shippers is thought to be better than Kolb's Gem. Bluish cast melon and elongated.

Success Water Melon. A southern variety which has become very popular with shippers. The fruit is uniformly large, nearly round, dark green, sometimes indistinctly striped with a lighter shade and has a thin and firm rind which makes it an excellent shipper; flesh bright red and of good quality.

Iceberg Water Melon. One of the most popular market and shipping varieties. Grown very extensively in the South for Northern markets.

Sweet Heart. This melon is early, large, handsome, heavy and productive. The shape is oval, and color mottled light to very light green.

Black Spanish. Large, roundish, nearly black; dark red flesh; early.

Florida Favorite. A very large, long melon, mottled dark green, with stripes of lighter shade.

McIver's Wonderful Sugar. Without a single exception this is the sweetest water melon of all.

Monte Cristo or Kleckley Sweets. A splendid sort. Vine vigorous and productive; fruit of medium size; oval; color dark, mottled green in two shades, forming indistinct stripes.

Cuban Queen. Fruit medium size to large, globular or oval; skin striped light and dark green in sharp contrast.

Dixie. A popular market sort. Vine vigorous, large growing and hardy; fruit medium sized to large, about one-third longer than thick. Color of skin dark green, striped with a lighter shade.

Gypsy, or Georgia Rattlesnake. One of the largest varieties, and stands shipment long distances. Fruit cylindrical, square at the ends, smooth, distinctly striped and mottled light and dark green.



GYPSY, OR GEORGIA RATTLESNAKE

IF AND THE GARDEN

If you are so rich that deferential servants quietly anticipate your wish, your table is seriously lacking when vegetables come other than dew bejeweled from your garden.

If you should come to be so poor that the wolf came to the door, remember the vegetable garden is the best barricade ever erected between that animal and yourself.

If to you the world's best music is the laughter of your child, your garden is that child's best kindergarten as possibly it was the kindergarten of the race.

If you love colors, the fleeting rainbow is permanently outrivaled in these things that grow and change.

If you are tired of the crowd, make your garden a little park for the thoughtful or quiet hour.

If just now it is little practical things that interest you, remember that a garden it is well to own when the unexpected guest comes at meal time.

MUSTARD



GIANT SOUTHERN CURLED

Culture. Mustard is grown for its seed which is used for flavoring or medicinal purposes or grown for its leaf which is used in salad or cooked like spinach. Sow mustard as soon as the soil can be worked in spring and every three weeks for a succession, or in the south it may be sown in the fall for early spring greens. Cover the seed lightly in twelve to eighteen-inch drills. Cut the leaf when not over four inches high and expect this cutting in fifty days from the seeding.

Giant Southern Curled. The favorite in the South.

Fordhook Fancy, or Ostrich Plume. Same as above.

Chinese or Large Leaved Mustard. The large leaves which often measure 14 inches are ready for use in about six weeks after sowing. Plants will continue to yield until frosty weather. Leaves are eaten boiled, like spinach.

Bloomsdale, Large Leaved. Same as the Chinese Mustard described above.

White. Best for general use.

Brown. Stronger than above.

MUSHROOM SPAWN

There is a mistaken idea that mushroom growing is difficult. They will do well almost anywhere that a fairly uniform temperature of forty-eight to fifty-five degrees can be maintained. For the purpose one may use sheds, caves, cellars or space under the greenhouse benches. A more uncertain method, but one which gives us surprise crops is to insert from time to time pieces of spawn in the lawn or in old pastures. Full culture directions for mushroom growing free.

One pound of spawn is sufficient for a bed two by six feet.

We receive fresh spawn several times a year from the best makers.

English Mill Track Spawn.

French Mushroom Spawn. Put up in boxes of 2 pounds each.

American, Pure Culture, Spawn. Produced by the new grafting process, from selected and most prolific varieties, has never failed to run.



OKRA

NASTURTIUM

Tall Mixed Garden. Grown not only for ornament but the beautiful orange colored flowers and foliage are used for garnishing and the young leaves or shoots are excellent for salads. The green seed pods are greatly esteemed by many for use in mixed pickles.

Dwarf Mixed Garden. Same as above except that it grows in dwarf form.

OKRA, OR GUMBO

Culture. The pods of this plant are used in a great number of ways throughout the Southern States, and the plant should be more frequently grown in the north. Plant at corn planting time in rich land, sowing the seed thickly in two to three foot drills, and thinning to an eight to twelve-inch stand, according to varieties. A generous planting is two ounces to one hundred feet and ten pounds to the acre. Okra seed may be planted six seed to the hill, two to three feet apart and thinned to two plants to the hill.

White Velvet. Produces pods larger than any other.

Dwarf Green. Grows low but stocky and is very productive.

Long Green. Taller than above, pods similar.

Perkins Mammoth Long Pod. The pods are produced in great abundance and average longer than other sorts.

LEONARD'S ONION SETS

**RED****WHITE****YELLOW**

Leonard's Onion Sets are the Chicago Standard. We are the pioneers in set growing here. The Chicago onion set has that fine bright color which is so much desired, and being grown from the same kind of seed that produces our best large onion it produces a bulb far superior to the Southern or Southeastern product. We claim a superiority for our onion sets which comes from superior knowledge in planting, harvesting, storing and shipping as a result of long continued experience and large operations. We are now and for many years have been the leading Onion Set growers.

Culture. Onion Sets should be planted as early in the spring as convenient to obtain early green onions but they may be set at any time up to June first. Set in rows a foot apart and two to four inches between them in the row. When grown in quantities superior cultivation is given in order to forward the crop for an early market. Those not used in green condition will ripen early in July. Potato and Top onion are grown from bulbs only. These clusters are separated and kept for seed.

There is no crop which pays better than the first load or so of green onions in the market. Onion sets make this crop for you. They will give the largest returns for the money invested if the product is sold or give excellent green onions for home use at a time when fresh green vegetables are needed.

Yellow Onion Sets. The yellow sets are grown from seed of Strasburg, Yellow Danvers, Yellow Globe Danvers and Southport Yellow Globe, either of which we can furnish. Yellow is the standard color for onions in many of the largest markets.

Red Onion Sets. These sets are grown from the Red Wethersfield variety and will produce marketable onions several weeks earlier than seeds. For green onions they are also very desirable.

White Onion Sets. We have sets grown from the White Globe seed or from the White Portugal seed and can furnish either kind. White sets produce the finest early green onions, and no garden should be without them.

Prizetaker Sets. These sets are grown from seed of the Prizetaker onion. The most successful growers of Prizetaker say that this onion cannot be grown to its fullest perfection unless seedlings are transplanted or the onions grown from sets.

***White Pearl Sets.** This is the early waxy, silvery white Onion, the genuine White Pearl Set. It is for sale in September and October and can not be kept in storage for a much longer period. It produces an Onion that in mildness of flavor is probably not surpassed.

***Bermuda Sets.** We use the Teneriffe seed, a product of the Canary Islands, and these Sets produce the pale red, slightly flattened Onion with white flesh, at times slightly suffused with pink. With good care these Sets readily give an Onion of three to four-inch diameter. Exactly the Onion that gave Texas its Onion growing reputation.

***Crystal White Wax.** This set is also produced from Teneriffe grown Onion seed and is very popular through the Southern States and Texas. It gives a large, pure white, flattened Onion of mild flavor.

Shallots or Multipliers. These are very popular at the South. They are grown largely for flavoring. The clumps are divided and they multiply very abundantly.

White Multiplier Onions. Owing to the white color this is considered an improvement on the yellow multiplier onion, which it resembles in habit of growth.

Yellow Potato Onions. The old original English multipliers, the genuine potato onion.

Winter Tops (Perennial Tree Onions). These are very hardy; they need no protection during the Winter, and will continue for many years to yield an abundant supply of green onions without replanting.

Genuine Top Onions. This is the old-fashioned top onion. The small clumps when separated are planted and each small bulb produces a large, solid, marketable onion of the finest keeping qualities. This onion, when planted, produces again on the top of a stalk which shoots up from it the small clumps, just as ordinary onions throw up a ball of seed.

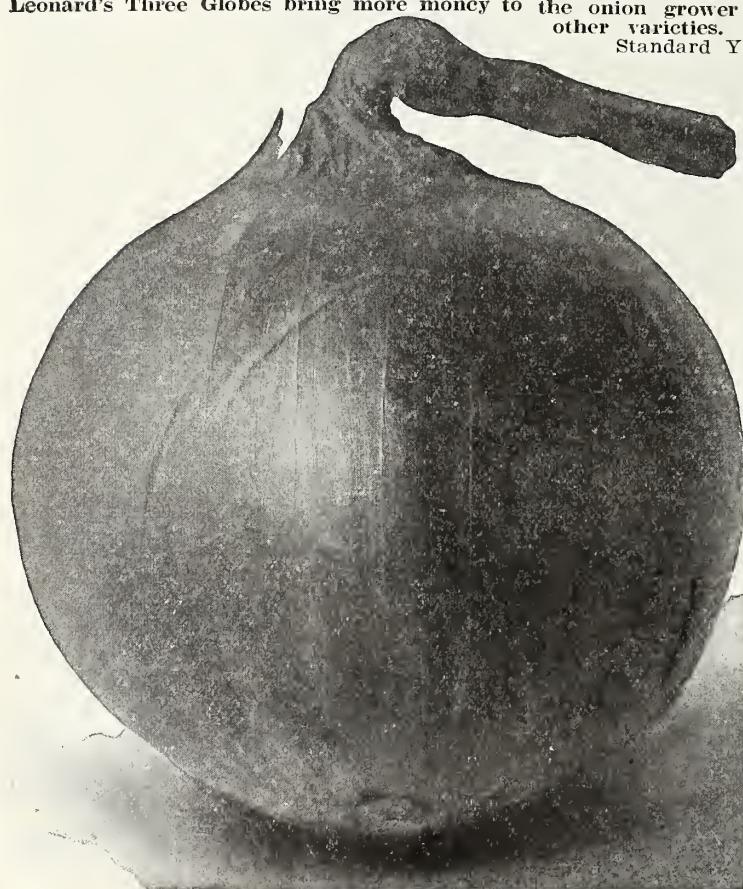
*These varieties for Fall shipment only.

Leonard's Globe Onions



LEONARD'S THREE GLOBES.

Leonard's Three Globes bring more money to the onion grower and sell quicker than any other varieties. Our Yellow Globe is the Standard Yellow, our Red Globe is the Standard Red and our White Globe is the Standard White.



ONION—LEONARD'S YELLOW GLOBE.

Leonard's Yellow Globe

This Onion is our prize yellow market variety. It is the most uniform as to size, the most productive, the best keeping and the handsomest yellow-skinned Globe variety we have ever known. It has taken years of patient effort to bring it to its present perfection, and to keep up the standard of excellence requires extreme care in the selection of bulbs to set out for seeding when the time for that event occurs each year. This onion has the call on the Chicago market, and our home sales for seed of it are very large. Last season our supply became exhausted long before the planting season was over.

Good growers of onions seldom allow a difference in price to keep them from buying good seed if they feel sure that it is good. To such we would say: The seed here offered is worthy of investigation if a good thing is wanted.

Leonard's Globe Onions

Leonard's Red Globe

The deep dark red color of our Red Globe is one of its superior points, while in shape and size it is a counterpart of our Popular Yellow Globe.

In the Michigan, Indiana and Ohio onion sections, as well as in Illinois and Iowa this strain of Red Globe produces the prize-winning red onions.

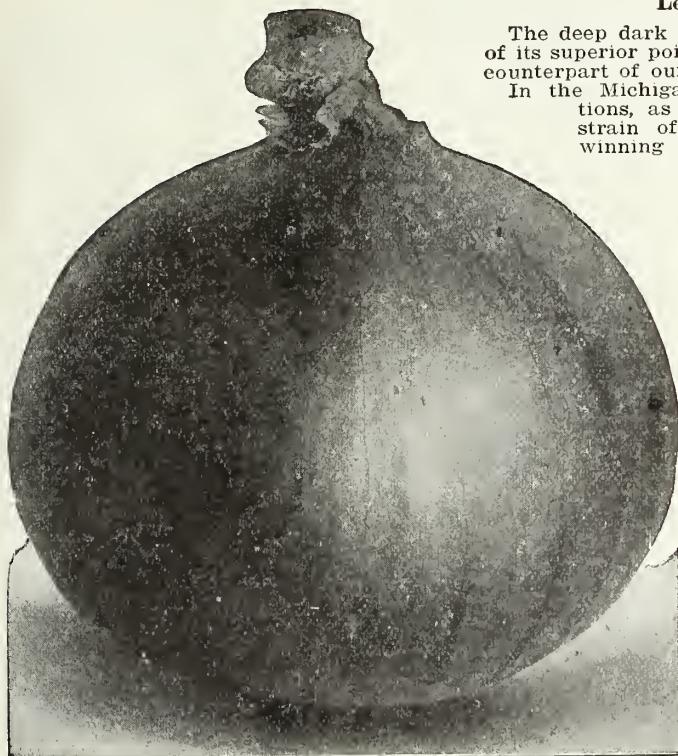
Where competition is keen it will pay large returns for the additional cost of the seed.

Superior stocks are necessary to the prosperity of the market planter. The inferior article may be more attractive at the beginning, because it costs less, but the superior seed gives the more valuable product. You cannot afford to do without the best.

The Onion Seed Specialties here offered are worth many times their cost to any market grower, and the satisfaction they will give to the consumer will increase the profits of the gardener who grows them.

Leonard's White Globe

White skinned onions when successfully grown are by all means the handsomest and will usually bring more money per bushel than either of the other colors. It is harder to grow them to per-

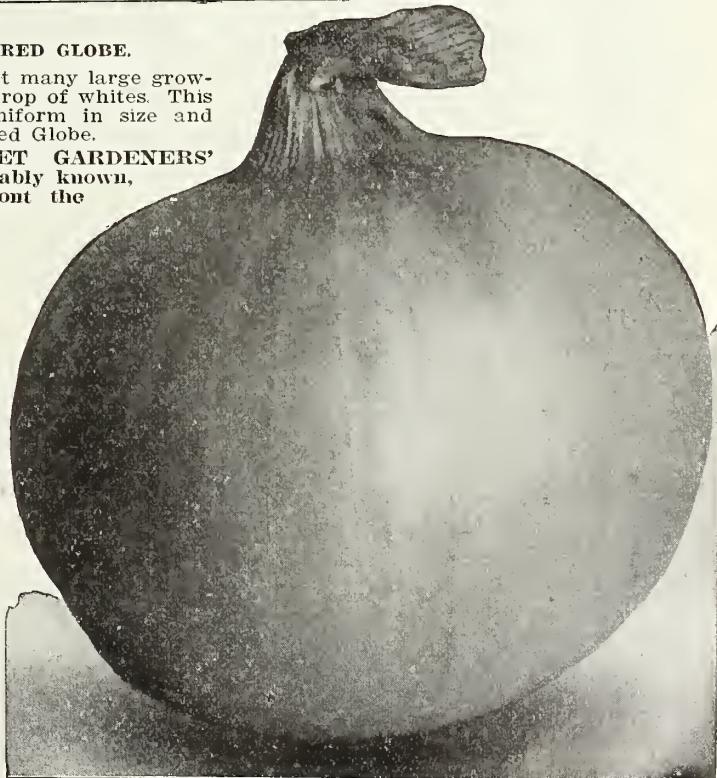


ONION—LEONARD'S RED GLOBE.

fection than red or yellow, but many large growers score big returns from a crop of whites. This strain of White Globe is uniform in size and shape with our Yellow and Red Globe.

Our position as **MARKET GARDENERS' SEEDMEN** is well and favorably known, both at home and throughout the country. Our pre-eminent standing in this line of the Seed Business has been long established. The Market Gardener, when he plants **LEONARD'S SEEDS**, may therefore feel reasonably sure that he is planting the best seed obtainable.

During the past twenty-seven years, in addition to the vast quantity we sell, we have each year planted and handled the product of thousands of pounds of onion seed. We plant the same kinds of seed that we sell, and sell the same kinds that we plant. We are growers of onions, as well as sellers of the seed. We would not sell any seed that we would not be satisfied to plant ourselves. We know what onions should be and we know the value of good seed.



ONION—LEONARD'S WHITE GLOBE.

ONION SEED

Culture.—Study the demands of your market to know what onion that market requires.

As soon as the soil can be worked in spring, and not after May 1st, sow onion seed in twelve to fifteen inch rows, leaving out every tenth row as a weed alley if preferred. One ounce of seed plants one hundred fifty feet and five to six pounds plants the acre. The black, slow-germinating seed should be covered firmly one-fourth inch deep. Quantities of manure had best be applied in the year before the planting, and much commercial fertilizer, high in potash, harrowed in immediately before seeding.

Begin cultivation as soon as the plant can be seen; cultivate frequently and when convenient thin to a stand of two to four inches.

In the so-called new onion culture the onions are started in hot beds and easily transplanted when the size of slate pencils to the required stand in the field.

Prizetaker. Grows to an immense size and for fall marketing is unexcelled. Although of such great size, it is very hardy and a fair Winter keeper, as it ripens up hard and firm; very fine grained, and of mild, delicate flavor. The outside skin is rich yellow while the flesh is white. To get the best results from this onion the seed is sown in beds and transplanted. It will, however, make a good crop if sown in the ordinary way.

Leonard's Yellow Cracker. The earliest, handsomest, and best flat onion in the list. Besides being early it is one of the best keepers.

Yellow Globe Danvers. This fine onion is of large size. An early and abundant cropper. Bulbs very thick, flat or slightly convex bottoms, full oval top with small neck and rich brownish yellow skin.

Early Flat Yellow Danvers. A good variety, but not as round or quite as early as the Yellow Globe Danvers.

Yellow Strasburg, or Dutch. One of the oldest varieties. Bulbs quite flat of good size, skin yellow, flesh white, of mild flavor and keeps well. This is the variety used very extensively for growing yellow onion sets.

Southport Yellow Globe. A large, perfectly shaped Globe onion and an excellent onion for keeping throughout the winter. A very heavy cropper, handsome in appearance and a good dark yellow color.

Michigan Yellow Globe. The bulbs are large and uniformly spherical with very small necks and the largest diameter below the center of the bulbs of a rich orange color.

Ohio Yellow Globe. An early Globe onion, small neck and very uniform in size and color. Very popular in the marsh onion sections of Ohio and Indiana.

Giant Yellow Rocca. Of all the magnificent Italian onions now in cultivation none are more popular than the Giant Rocca.

Australian Brown Onion. Is of medium size, wonderfully hard and solid and most attractive for market, both as to form and appearance. The color of the skin is a clear amber brown.

Giant Red Rocca. This magnificent variety is of beautiful globe shape, skin red, flesh white, of mild, pleasant flavor.

Large Red Wethersfield. We have a very fine and select strain of this sort. Color is deep purplish red, flesh white moderately grained and very firm. Yields an enormous amount per acre, and is one of the best winter keeping onions.

Extra Early Flat Red. This variety matures from ten days to two weeks earlier than the Red Wethersfield. The color is a deep rich red, fine grain and close.

Southport Red Globe. This is a fine keeper. Large size and considered one of the best red onions. Flesh is fine grained, very mild and tender.

Copper King. This variety is the largest red onion grown. It is fine and mild in taste. With the two varieties above mentioned a combination is formed which wins prizes at all fairs for all colors.

Bermuda Red. A very early pale red onion, grown extensively in the Bermudas and southern part of the United States for early shipping to northern markets.

Bermuda White. Mild flavored; yellowish in color; otherwise same as red.

Crystal White Wax. This variety is popular at the south where the transplanting method of culture is practiced. A large, beautiful, silvery white skinned variety, of handsome flat shape, of very fine flavor and quality.

White Portugal. American Silver Skin. This is the best sort to sow—for onion sets or for pickling. When sown thickly for either it makes a small, round, hard bulb.

Philadelphia Silver Skin. Very desirable for family use. Flavor mild and pleasant.

White Victoria. A beautiful, large, round variety with silver white skin, but sometimes of a delicate light rose color; flesh juicy, sweet, and milky white. A good keeper.

Southport White Globe. This grows to a very large size and is a perfectly globe-shaped onion. Color is a clear pure white. This variety is used by the Chicago market gardeners for bunching.

Spanish King. One of the handsomest onions grown. Specimens weighing nearly four pounds are often harvested.

Silver King. This is a grand onion. It is a manimoth grower, of beautiful pearly white color, almost transparent in appearance. To match Spanish King at fairs and exhibitions it is just what is needed.

Neopolitan Marzajola. A large, beautiful, silvery white skinned variety, of handsome flat shape, of very fine flavor and quality.

Extra Early Pearl. A very fine, Italian variety that grows quickly to a good marketable size. Very popular, particularly in the south. The bulbs are round, flattened, with a delicate pure white skin.

New White Queen is a fine early silver skinned variety, of beautiful form and rapid growth, and possessing fine keeping qualities.

White Barletta. When matured the tops die down, leaving beautiful and perfect little bulbs. The color is pure white, flavor mild and delicate, perfectly adapted for pickling and table use.

PEAS

Culture. All varieties of peas, regardless of height, may be grown successfully without a trellis or support. As peas vary in height from six inches to six feet, it follows that the distances in the row and apart in the row should vary. Dwarf or half dwarf varieties are best planted in double or companion rows six inches apart to support and shade each other in their growth; then leave a space of eighteen to thirty inches, according to height of the variety, and repeat the double row. The tall varieties that may be given support are planted in single rows, the space between the rows somewhat less than the height of the variety. Drop ten to twenty dwarf peas to the double row or six to ten tall peas to the foot of row, using one quart to one hundred feet and three bushels to the acre.

Plant all peas about five inches deep in soil that has been deeply plowed. This deep planting is the grower's attempt to give the peas the cool, damp climate they prefer. Lightly harrow or rake the soil when the peas should be breaking through, and continue to cultivate until the vine stops the work.

All peas stand some frost and may be planted as soon as the soil may be worked in spring. Peas should be planted frequently for a succession all north of the Ohio. The early varieties are planted in August for a late autumn crop.

For quality's sake, pick peas before they crowd the pod and pick all pods as rapidly as produced to somewhat extend the plants bearing.

As all varieties of peas lose their characteristics when left without that selection given by expert seedsmen, it is necessary to go to a reliable source for seed peas.

Notice. Wherever the number of days from planting to first picking for table use is given, the time is taken from our trial ground records made during the season of 1909 in Wisconsin. Weather conditions, variations in soil and cultivation, as well as difference in latitude, will make either a longer or shorter period of growth.

LEONARD SEED COMPANY.

SMOOTH SEED, 60 LB. TO BU. WRINKLED SEED, 56 LB. TO BU.

As to a superiority between smooth and wrinkled peas, it is all a matter of individual taste, but the preponderance of taste is in favor of the wrinkled varieties.

SMOOTH SEED

Alaska. Well known and extensively used, especially by canners. Very early and when carefully grown, uniform in ripening. Vine is strong and vigorous, 2 to 2½ feet high, of a peculiar light green color; pods 2¼ to 2¾ inches long, straight and blunt at the end, and light in color. Is ready for picking 49 to 50 days from planting. Seed round, blue, slightly pitted.

Ameer. Resembling the Alaska in appearance, 3 to 3½ feet in height. Pale green foliage. Pods 2 inches in length, pointed, dark green in color. Seed blue, dented, medium pitted.

Bountiful. Resembling the Alaska in general habit of growth. Vine 36 inches, foliage gray green; pods 3½ inches in length, pointed, gray green in color. Fit for table use 55 to 57 days from planting. Seed blue, medium pitted.

Blue Imperial. The height is 3 feet, foliage is medium green in color, vines bearing pods large in size, blunt and medium green in color. They are fit for use about 60 to 65 days from planting. The seed is blue, round, smooth and large size.

Blue Beauty. The height is 1½ feet. The vines are medium green in color. The pods are small, round and blunt at the end. They are pale green in color and are fit to pick about 52 to 55 days from planting. The seed is blue, smooth and small in size.

Black Eyed Marrowfat. Strong and vigorous vines bearing pods near the top of the vine. Peas of a poor quality. Height 50 to 60 inches, light color foliage, pods 3 inches long, blunt, light green. Ready to pick 69 days from planting. Seed large, smooth, white with a black eye.

Claudit. In general habit and height of vine resembling Alaska, ripening almost at the same time, but with much longer, broader pods. Pods 3 inches in length, straight, handsomely shaped and well filled at the point. Seed round, light green, dented, height 2½ feet.

D'Anonay Amelior. Height about 12 inches, vines exceedingly uniform in growth, bushy and compact. Pods borne at top of vine in great profusion. Foliage light green in color, pods 2½ to 2¾ inches in length, round, blunt, pale green in color, maturing with the first earlies. Seed yellow mixed with pale green, medium sized and round.

Extra Early. Early, productive and hardy, with a strong, vigorous vine, which is light in color and uniform in growth, 2½ to 3 feet in height and bearing straight pods 2½ to 2¾ inches long, round, light in color and blunt at the ends. Is fit for table use 50 to 52 days from planting. Seed round, rather small, and white in color.

Early May Improved. This pea is one of the best of the "White" earlies and is superior to First and Best or Prolific Early Market. Vines are strong growing for this class of pea, about 30 inches in height, foliage pale green. Pods are pale colored, straight, round and blunt. Average 2¼ inches in length. Fit for use 56 days from planting. Seed small to medium sized, white and smooth.

Early Morn. An English variety of the Gradus type with many desirable qualities. Bearing large, handsome pods in profusion. The peas are large, closely packed in the pod, and the flavor is sweet and delicious. Those who know the good qualities of Gradus will not be disappointed in their trial of this variety. The seed should not be sown until the soil is in a fit state to receive it early in April, as it is a rapid grower. The pods are very large and well filled, and are often ready to pick during June. Height about 3 feet.

Essex Star. Vine 3½ feet in height. Medium green foliage, pods 3 inches in length, pointed, dark green in color. Fit for table use 50 to 55 days from planting. Seed medium size, dented, mixed green in color.

First and Best. Early, productive and hardy, with a strong, vigorous vine, which is light in color and uniform growth, 2½ to 3 feet in height and bearing straight pods 2½ to 2¾ inches long, round, light in color and blunt at the ends. Is fit for table use 50 to 52 days from planting. Seed round, rather small, and white in color.

PEAS—Smooth Seed—Continued

French Canner. This is the small French Pea used for canning. Very prolific. Long, slim pods containing from 7 to 10 peas.

Fillbasket. Hardy, upright and prolific in growth. Dark green foliage, 3 feet in height, pods medium curved, dark green in color. Seed blue green, medium sized, very smooth. Fit for table use about 70 days from planting.

Giant Lightning, Carter's. Vines 4 feet in height, with pale green foliage. Pods large, blunt, pale green. Fit for table use 57 to 60 days from planting. Seed large, white and smooth.

Giant Express, Carter's. A large type of Alaska Pea, vines 4 feet in height, with pale green foliage bearing large, broad, blunt pods pale green in color. Is fit for table use 65 days from planting. Seed is large, smooth and blue.

Improved Sugar Marrow. Much better than the old White Marrowfat. Pods larger, well filled and of the true marrow flavor.

Long Island Mammoth. Very popular with market gardeners who want a large, handsome pod of a dark green color.

Melting Sugar. Large edible pod. Height, 42 to 48 inches. Pods, 4 to 4½ inches long and 1½ inches broad. Fit for table use 80 days from planting.

Mauritania. Vines 24 to 28 inches in height. Foliage light green, pods 2½ inches in length, blunt, light green in color. Matures in 46 days from planting to first picking. Seed small, white, smooth. This pea resembles First and Best in general habit, and is a vast improvement over First and Best.

Maud S. A very fine extra early sort, hardy, productive and of good flavor.

Pride of the Market. Of fine growth and general appearance, both vine and pod, and closely resembles the Strata gem except that the vine is not quite so long and the pods are deeper green in color. The vine is 20 inches high, foliage dark green color. Pods are 3½ inches long, broad and dark in color. Fit for table use 61 days from planting. Seed blue, slightly dented, large.

Prolific Early Market. Said to be an improvement over the First and Best. This pea is early, hardy and productive. Vines are strong and vigorous, pale green color. Height 2½ to 3½ feet. Pods are round, blunt, light green colored and average 2½ to 2¾ inches in length. Is fit for table use in 52 days from planting. Seed medium sized, yellow and smooth.

Primo. A good early broad podded pea of recent introduction. Vines grow to a height of 3 feet, are light green in color and strong growing. Pods are of good size, light green in color and are slightly curved and pointed at end. Are fit for table use in 58 days from planting. Seed is large, white, smooth and flattened.

Peter Pan. A new English variety of merit. It may be classed among the early sorts. Height of vine 16 to 20 inches, color medium dark green, bearing dark to medium dark pods which are round, curved and pointed. Pods average 3¼ to 3½ inches in length. Fit for table use in 60 days from planting. Seed large sized and yellowish white in color and smooth.

Pilot, The. A new pea of English origin very similar to Gradus as to earliness, color of vine and pod as well as quality. Vines grow to a height of 3 to 4 feet with foliage medium to dark green color. Pods are large, pointed at end and broad. Dark green in color. Is fit for table use 60 days from planting. Seed yellow and green mixed, medium sized and nearly smooth.

Saxonia. The originator of this new Pea describes it as follows: With rare unanimity has my new Pea, which I introduced last year, been accepted in all pea growing countries as denoting an important progress in the development of our first early round sorts.

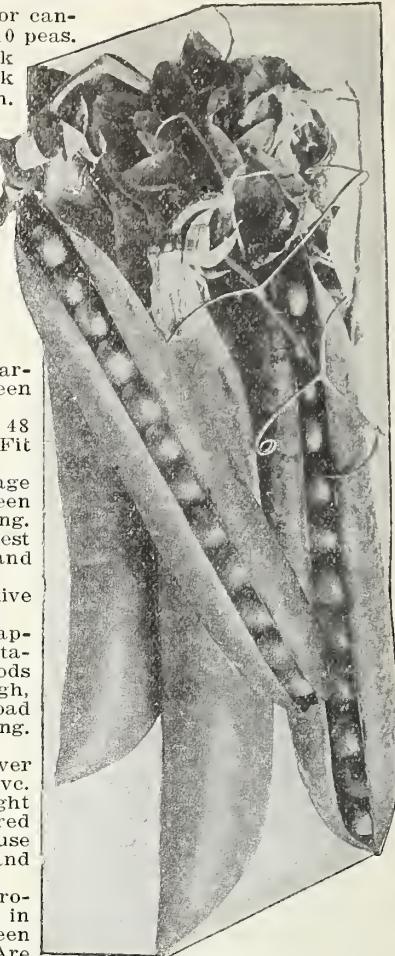
It is a well known fact that the one decided shortcoming of our first early round peas has always been their short yield as compared to that of later sorts. This blemish has been completely remedied by my new Pea "Saxonia," for it yields as abundantly as the favorite later sorts, and it cannot be surpassed in earliness by any pea.

The pods are of double the size of the Extra Early or First and Best, they appear mostly in pairs and are filled with large, pure white peas. The plant has the convenient height of 2 feet.

Telegraph. Closely resembling Telephone in all respects, except that the pods are a deeper shade of green, and the peas are of only fair quality, although the pods are of very fine appearance. Pods 4 to 4½ inches long, medium dark green, pointed. Fit to pick 65 days from planting. Seed large, blue and round dented.

Velocity. Height 2 feet, medium pale green foliage. Of the same type as Alaska. Pods small, straight, blunt, medium green in color, well filled with Peas of excellent flavor. Matures to first picking in 44 days from planting. Seed blue, small, pitted.

White Marrowfat. Vines hardy, strong, vigorous and bearing broad, thick leathery pods near the top of the vine, and containing peas of a poor quality. Height 45 to 50 inches, foliage light green in color, pods 3 inches long, blunt and light green. Ready to pick 69 days from planting. Seed large, smooth, white.



PILOT

PEAS—Continued

WRINKLED SEED, 56 POUNDS TO BUSHEL

American Wonder. Vigorous, productive vines, with a luxuriant foliage, and producing the leaves on one side of the stalk, growing from 9 to 12 inches high. On account of its dwarf habit of growth it is very desirable for private garden use. Pods are light colored, straight, round, about $2\frac{1}{2}$ inches long and blunt at the end. Fit for picking 55 days from planting. Seed is wrinkled, green, medium in size and square at the ends.

Advance. Vines upright and vigorous in growth, hardy and productive. Height 30 inches, foliage dark green, pods $2\frac{1}{2}$ to $2\frac{3}{4}$ inches long, round, dark colored and blunt, fit for picking 61 days from planting. Seed green, wrinkled, medium in size. A very fine pea for canners' use.

Admiral. A long vine, medium season pea, bearing pods in profusion. About the same size and shape as First and Best, but of much better flavor. The small size and fine flavor of the pea, with its great hardiness, make it a most desirable sort for canners who wish a sweet wrinkled pea of small size. Vines 48 inches high, with medium green foliage. Pods $2\frac{1}{2}$ inches long, medium light in color and blunt. Fit for picking 68 days from planting. Seed small, wrinkled, white.

Abundance. Vigorous in growth and productive, bearing pods in great abundance, although of medium size, and of excellent quality. Very similar in every respect to Horsford's Market Garden, except that it is about a week later, being fit for picking 71 days from planting. Pods are dark green, and blunt. Seed green, wrinkled, medium in size.

Autoocrat. Height $3\frac{1}{2}$ feet. Foliage dark green; pods large, blunt and dark green in color. Fit for table use 85 to 90 days from picking.

Alderman. A large podded pea of the Telephone type, very robust and vigorous as to vine. Foliage mixed, medium green. Height, 50 inches, pods 5 inches long, broad, pointed, medium green in color. Seed green, wrinkled, large.

Admiral Dewey. One of the largest podded pea yet introduced. Height, $3\frac{1}{2}$ feet; pods a rich, dark green color, frequently six inches long, beautifully shaped. Peas large, tender and of first class flavor.

Boston Unrivaled. Height $3\frac{1}{2}$ feet, foliage medium green in color. Pods large, pointed, pale green in color. Fit for table use 65 to 70 days from planting. Seed large, blue, green, wrinkled. Very similar to Duke of Albany and Alderman in habit.

Buttercup. Vine 2 feet in height. Foliage, medium to light green. Pods 4 inches in length pointed light green in color. Fit for table use 61 days from planting. Seed blue wrinkled medium size.

Leonard's Clatawa. "Clatawa" is Chinook Indian for get up and get. It describes in a word the main characteristic of this wonderful new pea. The Clatawa is as early as American Wonder and bears pods like the Telephone, which certainly proves it to be a "get-up-and-get" article.

Champion of England. Strong and vigorous in growth. 42 to 50 inches in height. Foliage medium green. Pods $2\frac{1}{2}$ to 3 inches long, blunt, medium dark green in color. Ready to pick 68 to 73 days from planting. Seed large green very much wrinkled.

Chelsea Gem. Height of vine 1 foot with dark green foliage. Pods small curved, medium green in color. Fit for table use 60 days from planting. Seed small, white, wrinkled.

Duke of Albany. Resembling the Telephone in appearance. Vine and foliage medium green in color. Height 50 inches, pods 5 inches long, broad, pointed, dark green. Seed large, green, wrinkled.

Duke of York. A pea of the same class as the Telephone, but earlier and more dwarf. The peas are sweet and of fine flavor.

Duchess. Height of vine 4 feet. Medium green foliage, pods large, pointed, dark colored. Fit for table use 56 days from planting. Seed, dark blue, large, wrinkled.

Dwarf Gray Sugar. The old variety of the edible-podded sort, and is used in no other way. Grows about 2 feet high and is remarkable for its earliness. Pods are broad, flat and crooked and contain 5 to 6 peas. Seed is brown and wrinkled.

Carter's Danby Stratagem Improved. Vines $3\frac{1}{2}$ feet in height, coarse dark green foliage. Pods are large, pointed, dark green in color, maturing in about 65 to 70 days to first picking. Seed large, blue green, wrinkled.

Dwarf Telephone. Vines 18 to 20 inches high, with rather coarse foliage, medium light green, bearing pods, broad, straight and about 4 inches long. Pale green in color and well filled with peas of excellent flavor. Ready for picking from 62 to 65 days from planting. Seed pale green, large, much wrinkled.

Dwarf Defiance, Suttons. The vines, vigorous and hardy, about two feet in height, with coarse dark green foliage, bearing long, broad pointed pods, dark green in color. Fit for picking 61 days from planting. Seed large, green, wrinkled. This pea is much more uniform in growth than the Stratagem, which it very closely resembles, and has the advantage of remaining fixed in its type, and showing practically no sports or runners.

English Wonder. Vines vigorous in habit, 12 to 18 inches in height. Medium green in color. Pods 3 inches long, slightly pointed, dark green in color. Fit for table use 67 to 69 days from planting. Seed blue green, wrinkled, medium size.



LAXTONIAN

PEAS, WRINKLED SEED—Continued



HORSFORD'S MARKET GARDEN

from planting. Seed blue green, wrinkled, large size.

Golden King. Vine $4\frac{1}{2}$ feet in height, pale green foliage. Pods 4 to $4\frac{1}{2}$ inches in length, straight, Golden yellow in color. Ready to pick for table use 77 days from planting. Seed large, green, wrinkled.

Horsford's Market Garden. Strongly resembling Premium Gem in habit of growth, but about one-third taller. Vines growing 26 to 30 inches high, foliage dark green, pods light colored, straight, about $2\frac{1}{2}$ inches long and blunt. Fit for picking 68 days from planting. Seed green, wrinkled, medium in size. A very popular pea with the canners and market gardeners on account of its excellent quality.

Heroine. Vines are strong and vigorous and produce an abundance of fine, large, well filled pods.

King Edward Seventh. Vine $1\frac{1}{2}$ feet in height with dark green foliage. Pods dark green, curved and pointed at the ends. Ready for table use 60 days from planting. Seed blue green, medium sized, wrinkled.

Laxtonian. Vine $1\frac{1}{2}$ feet in height with dark green foliage. Large curved dark green pods, pointed at the ends. Seed green, wrinkled, large sized.

Little Marvel. Height of vine 18 inches with dark green foliage. Small blunt dark green pods. Fit for table use 53 to 55 days from planting. Seed blue green, small sized, wrinkled.

The Lincoln. $1\frac{1}{2}$ to 2 feet in height, foliage medium green. Pods medium sized, curved and pointed and dark green in color. Seed blue green, mixed with yellow, small sized and wrinkled.

Nott's Excelsior. Resembling Gems in habit, but more dwarf and uniform in growth, height 12 to 17 inches, with rather light foliage. Pods are light in color, round, about $2\frac{1}{2}$ inches long, blunt at the ends. Fit for picking 56 days from planting. Seed green, wrinkled, medium in size and square at the ends.

Prince of Wales. Vines 3 feet in height, foliage pale green, pods medium sized, blunt, pale green in color. Fit for table use about 65 days from planting. Seed white, large, wrinkled.

Exonian. About 3 feet in height with pale green foliage, bearing small round blunt pods, medium green in color, about ten days later than Alaska. Seed green, wrinkled, small in size.

Everbearing. Vigorous and branching in habit of growth. Height, $2\frac{1}{2}$ to 3 feet. Pods, $2\frac{1}{4}$ to 3 inches long. Broad, light colored and blunt. Fit to pick 70 days from planting. Seed green, wrinkled, large in size.

Forty Fold. One of the best of the tall late varieties for general use. Height 5 feet. An abundant cropper with peas of good flavor. Seed medium sized, wrinkled.

Gems, Premium. Strong and vigorous, producing vines from 18 to 24 inches in height, dark foliage, bearing pods singly on both sides of the stalk beginning near the ground. Pods are almost straight $2\frac{1}{2}$ to $2\frac{3}{4}$ inches long, light in color and blunt at the ends. Ready to pick 59 to 61 days from planting. Seed is green, wrinkled and medium in size.

Gems, McLean's Little. Strong and vigorous in growth, producing vines from 18 to 24 inches in height, dark foliage, bearing pods singly on both sides of the stalk beginning near the ground. Pods are almost straight, $2\frac{1}{2}$ to $2\frac{3}{4}$ inches long, light in color and blunt at the ends. Ready to pick 59 to 61 days from planting. Seed is green, wrinkled, and medium in size.

Gradus. A large wrinkled, early pea with a pod nearly as large as Telephone, filled with large peas, tender and of good quality and flavor. Very quick to germinate and mature with the early sorts. This pea will not stand adverse conditions, however, as well as some of the other sorts, and seed must be planted after all danger of early frost has passed. Height of vine 26 to 30 inches, with large luxuriant foliage pale green in color. Pods dark green, 4 to $4\frac{1}{2}$ inches in length and pointed. Fit for table use 52 days from planting. Seed large, cream colored, wrinkled.

Green Gem. Height of vine 12 to 15 inches, with very dark green foliage. Pods $3\frac{1}{2}$ inches in length, pointed very dark green in color. Ready for table use 54 days after planting. Seed dark green, wrinkled, medium sized.

Gladstone. Vine $3\frac{1}{2}$ feet in height. Dark green foliage with large pods curved dark green in color. Fit for table use 80 days

PEAS WRINKLED SEED—CONTINUED

Leonard's Potlatch. Strong, vigorous vines of even growth, 20 to 24 inches in height, with luxuriant dark foliage, bearing pods medium green in color $3\frac{1}{2}$ to 4 inches in length. Broad and pointed at the ends. No variety known will produce more pods, and no pods could possibly shell out better. The Potlatch is a variety from which anyone may expect great things. Fit for table use 61 days from planting. Seed green, wrinkled, large in size. We consider ourselves very fortunate in having secured and introduced this pea.

Richard Seddon. 16 to 20 inches. Richard Seddon, introduced a few years ago, has already established itself. The largest canning factory in New Zealand is now using it in preference to all others for canning its famous green peas. The haulms and pods are deep green, the latter crowded with 7 to 9 large peas of the very best color and flavor; it is as early as American Wonder, but a far more abundant bearer. We test all the new and standard varieties each season, and we can say with confidence that there is no better all-round early variety than this. Seed green, wrinkled and small in size.

Surprise. Resembling in vine, size and shape of pod Alaska and First and Best, but with the tender quality and delicate flavor of the best of the wrinkled sorts. Very much used by canners who wish an early pea with a sweet and delicate flavor.

PLANT OF LEONARD'S POTLATCH, SHOWING ITS GREAT PRODUCTIVENESS

Vines 2 $\frac{1}{2}$ to 3 feet high, light foliage bearing pods 2 $\frac{1}{2}$ to 3 inches long, light in color and blunt at the ends. Can be picked 43 to 47 days from planting.

Sutton's Excelsior. Similar in habit of growth to Nott's Excelsior, but bearing very large, broad pods, well filled with large peas. Very tender, and of the most delicious flavor. Vines about 18 to 20 inches high, medium light in color with pods 3 $\frac{1}{4}$ to 3 $\frac{1}{2}$ inches long, light in color and blunt at the ends. Is ready to pick 52 days from planting. Seed green, wrinkled, medium in size.

Sutton's A-1. Resembling somewhat Advance in habit of growth, 24 to 28 inches high, foliage light green. Pods 3 to 3 $\frac{1}{4}$ inches long. Round, light colored and blunt. Fit for table use 65 days from planting. Seed medium sized, green, wrinkled.

Sutton's Peerless. Vines 3 to 3 $\frac{1}{2}$ feet in height, dark green foliage. Pods large, pointed and dark green in color. Fit for table use 75 to 78 days from planting. Seed large, blue, wrinkled.

Sutton's Pioneer. A first-early Pea, which has won great popularity for its many fine qualities. The plant is unusually robust in habit, and carries a heavy crop of long, pointed pods of a dark green color, which are well filled with rich-flavored peas. So numerous are the pods that the plants present a most striking appearance while growing. We regard this as one of the best varieties in the dwarf section of the early class. Height about 20 inches.

Shropshire Hero. Strong, vigorous vines 42 inches in height. Pods 3 to 3 $\frac{1}{2}$ inches long, blunt, light green in color. Fit for table use 68 to 73 days from planting. Seed large, green, wrinkled.

Stratagem. A vigorous, hardy and luxuriant vine, bearing large pods containing peas of excellent quality. A heavy cropper, although it has a tendency to sport. Vines 20 inches. Foliage dark green. Pods 3 $\frac{1}{2}$ inches long, straight, broad, pointed, gray green in color. Fit for table use 56 days from planting. Seed very large, green, wrinkled.

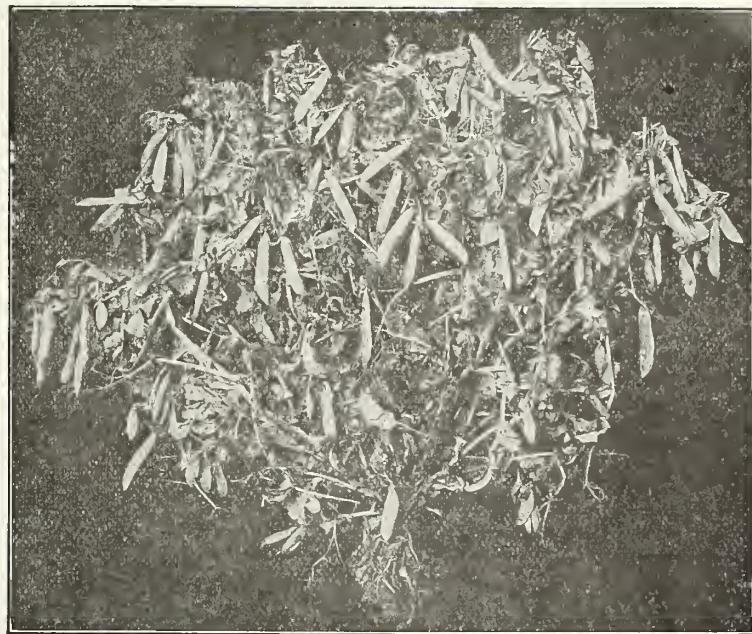
Sharp's Queen. Hardy and vigorous in growth, 36 inches in height with dark green foliage. Pods 3 $\frac{1}{2}$ inches long, curved, pointed, gray green in color. Fit for table use 62 days from planting. Seed green, medium sized, wrinkled.

The Sherwood. Vines 1 $\frac{1}{2}$ feet high, foliage dark green. Pods medium to large in size, straight and blunt, dark green in color. Fit for picking 70 days from planting. Seed blue green, medium sized, wrinkled.

Senator. Vines 36 inches in height, foliage dark green. Pods 4 inches long, curved and pointed, and dark green in color. Fit to pick 61 days from planting. Seed medium size, green, wrinkled.

Stanley. Vines strong, growing about 1 $\frac{1}{2}$ feet in height, with medium green foliage and bearing pods pale green in color, curved and slightly pointed. This pea may be classed among the earlies. Seed is medium sized, green and wrinkled.

Thomas Laxton. Closely resembling Gradus in habit, rapidity of growth, earliness and foliage, 26 to 30 inches high, and much harder in every respect than Gradus. Pods 4 to 4 $\frac{1}{2}$ inches long, round, well filled with peas, blunt at the end. Fit to pick 52 days from planting. Seed large, cream colored, wrinkled.



PEAS. Wrinkled Seed—Continued.

Telephone. Vines and leaves large and coarse. Foliage light green in color. Height 40 to 50 inches, pods $4\frac{1}{2}$ inches long, broad, pointed, medium green in color. Fit to pick 62 to 65 days from planting. Seed large, green, wrinkled.

Witham Wonder. Vigorous, uniform in growth. Height 18 inches with larger, broader pods than American Wonder and well filled with peas of extra fine flavor. Pods 3 inches long, round, a trifle curved and slightly pointed. Seed medium sized, green, wrinkled.

William Hurst. Resembling American Wonder in habit, but more straggling and uneven in growth. Height 16 to 18 inches, foliage dark, vigorous and productive, bearing in profusion. Curved pods, medium green in color, about 3 inches in length, fit to pick 57 days from planting. Seed green, wrinkled, medium in size.

World's Record (Sutton's). This is an English Pea introduced in 1907. The introducer says of it: "The haulm is not so tall as Sutton's Early Giant, and the pods are scarcely so large, but it is no exaggeration to say that the World's Record is the earliest large podded marrowfat pea in cultivation." In our trial grounds it has proved to be a very fine large podded early pea. Height of vine about 3 feet. Strong and vigorous. Very prolific. Pods green in color and containing peas of very superior flavor.

Yorkshire Hero. Hardy, productive, and upright in growth, bearing near the top of the stalk broad, pointed pods with peas of good quality. Foliage dark green, 23 to 28 inches in height. Pods $2\frac{1}{2}$ to 3 inches long, blunt, light green in color. Fit to pick 68 to 73 days from planting. Seed large, green, wrinkled.

PARSLEY

Parsley used for garnishing and for seasoning can be planted as soon as the soil can be worked in spring. Cover the slow germinating seed one-fourth inch deep in twelve to eighteen-inch rows, later thinning to a six-inch stand. One-fourth ounce sows one hundred feet and three to five pounds plants an acre. To improve the appearance of the crop, trim the plants with a sickle two or three times during its growing season and at the approach of winter transplant to cold frames or a sunny window. Parsley may be mulched with coarse litter and wintered for spring use till the new crop begins.

Double Curled. The standard sort for outdoor culture, also highly prized by market gardeners for the greenhouse.

Champion Moss Curled. A very fine curled variety. One of the handsomest for garnishing purposes. The exceedingly curved leaves make it desirable.

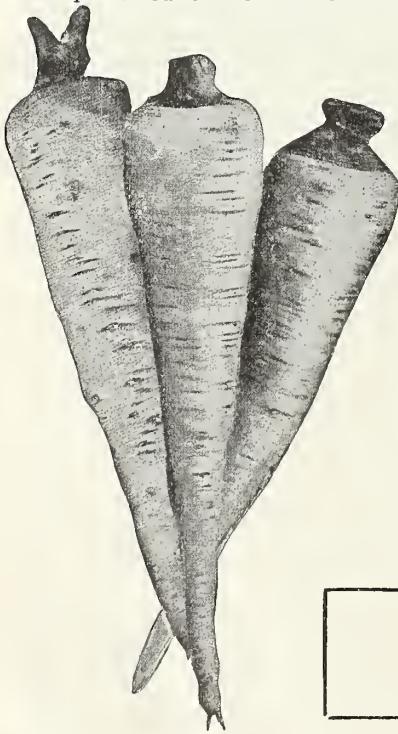
Fern Leaved. This sort has a peculiar, fern shaped leaf. It is not so desirable as the more curled sorts.

Triple Curled or Myatt's Garnishing. Very finely curled variety of dark green color. One of the best varieties for all purposes.

Plain. Leaves flat, deeply cut but not curled; often preferred on account of the very dark green color as well as the hardiness of the plant and its superiority for flavoring. The curled sorts are more extensively used for garnishing.

Hamburg Rooted. The standard rooted sort. The leaves are used for soup greens, and the roots when sliced are very much esteemed.

CHAMPION MOSS CURLED PARSLEY



PARSNIP

Culture. Plant one-year-old parsnip seed as early as the soil can be worked in spring and do not cover this slow germinating seed deeper than one-fourth inch. Use eighteen to twenty-four-inch rows, thinning the plants to a four-inch stand. One-half ounce of seed sows one hundred feet and three to five pounds plants an acre. This crop requires the entire season to mature, and as frost improves the roots, they may be left in the ground all winter. Both as to quantities and its feeding values, the parsnip is a valuable stock feed.

Hollow Crown. Roots long, white, smooth, tender, sugary and of most excellent flavor. Very hardy, and will keep through winter without protection.

Guernsey. Root white, very tender, with a smooth, clean skin. The variety is easily distinguished by the leaves growing from depression on top or crown of the root.

Long White Dutch, or Sugar. Root very long, white, smooth, tender and of most excellent flavor. Very hardy and will keep well through the winter without protection.

**USE FRESH PEAS INSTEAD OF
THOSE IN CANS—THE TIN IS
NEEDED ELSEWHERE**

PEPPERS

Culture. The pods of the pepper are used in sauces, salads, soups or as a seasoning, and the large mild varieties called mangoes are eaten from the hand or variously stuffed and prepared with cabbage, tomatoes or meat. The pods of peppers are green until in ripening they turn red or yellow, according to the variety.

Start pepper in hot-beds and in other ways treat like a tomato. Set out of doors after frosts in thirty-inch rows, giving each plant eighteen inches in the row. One ounce of seed gives, according to the handling, from one to two thousand plants and one pound plants an acre.

Long Red Cayenne. A long, slim, pointed pod, and when ripe, of a bright red color. Extremely strong and pungent.

Red Chili. Used in the manufacture of pepper sauce.

Red Cluster. A new type of Chili, with upright, bright red fruits.

Celestial. A Chinese variety bearing roundish upright pods.

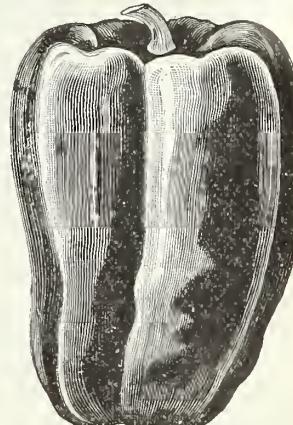
Coral Gem. This variety grows in the form of a bouquet; pods bright red.

Large Bell or Bull Nose. A very large sort of inverted bell shape, suitable for filling or for a mixed pickle. Flesh thick, hard and less pungent than most other sorts.

Sweet Mountain. Plants very vigorous and productive, growing upright, with moderately large leaves. Fruit very large, long, often 8 inches or more in length, by 2 inches in diameter.

Ruby King. An improved American sort, reaching the largest size, yet retaining the symmetrical shape of the smaller sorts.

Chinese Giant Pepper. Without doubt one of the very best and largest Mango Peppers ever introduced. Its mammoth size, splendid shape, beautiful, rich, glossy-red flesh and mild flavor, all lead us to speak of it in words of commendation.



SWEET MOUNTAIN.

Golden Upright. The fruits are large and of a beautiful rich golden yellow, tinged with blush red. The peppers are mild and as pleasant to the taste as Ruby King.

Golden Dawn. In shape it resembles the popular Bell or Bull Nose pepper. It is of a most beautiful golden yellow color, making a very handsome appearance, both in growth and upon the table.

Red Cherry. Plant tall, bearing a profusion of bright red, round fruit which is very pungent when ripe. The plant is very handsome and an ornament to the garden.

Golden Queen Mammoth. Very large fruits; rich golden yellow color; early.

Tabasco. Of tall, bush-like growth, three to four feet in height, producing an immense number of small, slender, fiery fruits one inch in length and vivid scarlet in coloring. This is the true variety, from which the famous Tabasco Sauce is made.

Procopp's Giant. Very large, usually 8 to 9 inches long and 3 inches thick. Brilliant scarlet color, flesh thick, of pleasant flavor.



Leonard Seeds are never commissioned—
To buy Leonard's Seeds is to avoid buying old seeds.

Leonard Seeds are sold in Bulk—
To buy Bulk Seeds is to see what is bought.

Leonard Seed Co. are Growers—
To buy from a grower has many things to recommend it.

PUMPKIN

Culture.—The finer varieties of pumpkins are used for pies and the coarser ones for stock feeding. While the pumpkin may be grown very much as cucumbers are grown in a garden, they are more frequently planted in the field with corn, where several seed are dropped in each fourth hill. Planted alone, six to ten seeds are covered one inch deep in hills eight to ten feet apart and thinned to two to four plants to the hill. One ounce plants twenty-five hills and two to four pounds of seed generously plants an acre. As this crop requires as much time as corn to mature, the planting cannot be too long delayed.

Cheese, or Kentucky Field. One of the best for table use, and very productive. Shape flat; flesh yellow, thick and tender.

Connecticut Field. The hardest of all pumpkins; cultivated mainly for stock-feeding, producing enormous crops.

Large Tours, or Mammoth. Grows to an immense size, often weighing over 100 pounds.
Mammoth Potiron. The flesh and skin are of a bright golden yellow color. Flesh fine grained and of excellent quality. This enormous variety has been grown to weigh 200 lbs.

Cushaw, or Crookneck. A favorite sort of excellent quality.

Winter Queen. This is an improvement of the old, well-liked sugar pumpkin. Its size is uniformly about nine to ten inches in diameter. In color, a beautiful deep orange yellow, with a very close netting, almost as russeted as a potato.

Golden Oblong. A productive variety, oblong in shape. Skin golden orange, flesh, yellow, dry and sweet; excellent.

Sugar or Pie. A rather small, but handsome variety. Shape, round; skin deep orange colored; flesh fine grained, sweet-flavored; superior for pies.

Calhoun. Round, flattened, skin brown; flesh salmon-yellow, thick and fine grained.

Tennessee Sweet Potato. Hardy, productive, sweet and delicious, and one of the best for cooking purposes ever introduced.

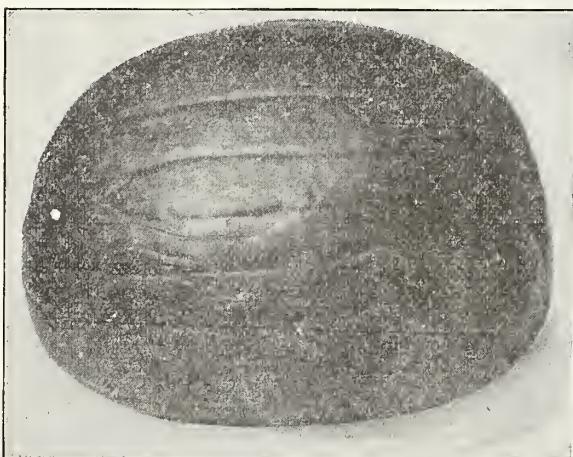
RHUBARB (PIE PLANT)

Culture. Rhubarb succeeds best in deep, somewhat retentive soil. The richer its condition and the deeper it is stirred, the better. Sow in drills an inch deep, and thin out the plants to six inches apart. In the fall transplant the young plants into very highly manured and deeply stirred soil, setting them four to six feet apart each way, and give a dressing of coarse manure every spring. The stalks should not be plucked until the second year, and the plant never allowed to exhaust itself by running to seed. Our seed is saved from selected plants of the Linnaeus, Victoria, Giant and other improved sorts, but like the seeds of fruit trees, rhubarb seed cannot be relied upon to reproduce the same varieties.

Rhubarb Seed.
Rhubarb Roots.



CHEESE, OR KENTUCKY FIELD



CONNECTICUT FIELD PUMPKIN

**SOME PLACE NEAR YOU LEONARD SEED IS SOLD.
IN BULK ONLY.**

RADISH

Culture. Plant radishes on a light soil if a choice is possible, and every second week for a succession from the time the soil can be worked in spring till the first light frost. Plant in two to eighteen-inch rows, cover the seeds one-half inch deep and permit four to ten radishes to grow to the foot; use eight to twelve pounds of seed to the acre. Radish seed, which germinates quickly, may be sown with some slow-germinating seed that the cultivation of that crop may begin the earlier, or the quicker-growing radish may be grown between rows of some slow-growing crop that later requires considerable space.

The Winter Radish is sown at late turnip planting time and used in the autumn or stored for winter like the turnip.

Leonard's Three Leaf Radish. So named on account of its extreme earliness and the fact that when there are three leaves formed besides the seed leaf it is large enough to eat. It is an improved form of the well known Scarlet Olive.

Non Plus Ultra. This is one of the finest forcing radishes. The roots are round, with a deep scarlet colored skin, the flesh white, very crisp and tender.

Olive Shaped Bright Red Leafless Forcing. The extra early forcing radishes lately introduced are remarkable for the small size of their leaves. They develop their roots in so short a time that the latter are practically in advance of the leaves.

Rosy Gem. One of the very earliest in cultivation. Shape a perfect globe. Deep scarlet top, blending into pure white at bottom.

Early Scarlet Turnip. The standard early turnip radish. Fine flavored and mild.

Scarlet Turnip, White Tipped Forcing. An early strain of the White Tipped variety having a short leaf and suitable to plant in the green house.

Scarlet Turnip, White Tipped. One of the handsomest of the turnip radishes and a great favorite in many large markets for early planting outdoors. It is but little later than the White Tipped Forcing, and will give entire satisfaction where extreme earliness is not the primary object. Roots slightly flattened on the under side, color very deep scarlet with a white tip; flesh white and of the best quality.

Scarlet Olive. Very tender and a beautiful color. Early.

Early Scarlet Globc. A desirable sort of hotbed forcing and outdoors, very early; flavor mild; crisp, juicy and tender; top small; will stand heat without becoming pithy.

New Deep Scarlet Turnip. This is a very bright colored Scarlet Turnip radish, very early and short leaf, well adapted to forcing under glass. Matures in fourteen to twenty-one days, and its appearance will sell it in any market.

Early White Turnip Rooted. A little flatter than the Scarlet Turnip, and pure white in color.

Half Long Deep Scarlet. A variety half the length of Long Scarlet and of same form.

French Breakfast. Olive shaped, scarlet, with white tip; crisp and tender.

Large White Summer Turnip. A very large turnip shaped variety; white, very crisp and mild.

Large Yellow Summer Turnip. Like the above except in color.

Gray Summer Turnip. Popular for mid-summer.

White Strasburg, or Summer Hospital. Large, showy, half long, white sort. Grows with great rapidity, sometimes producing a crop in six weeks.

Giant Stuttgart. A summer variety. Grows to an immense size. White flesh, very crisp and tender. Of good flavor, and a good keeper.

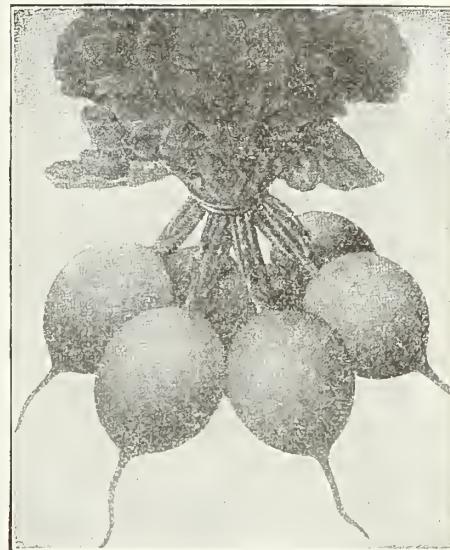
Golden Globe. This variety is of quick growth, affording crisp and tender radishes even in the hottest climate and is extensively grown in the south.

Long Brightest Scarlet, White Tipped. This is the brightest and handsomest colored scarlet radish known, and a decided improvement in earliness and color over other varieties of this class. It makes roots fit for use in about twenty-five days from time of planting.

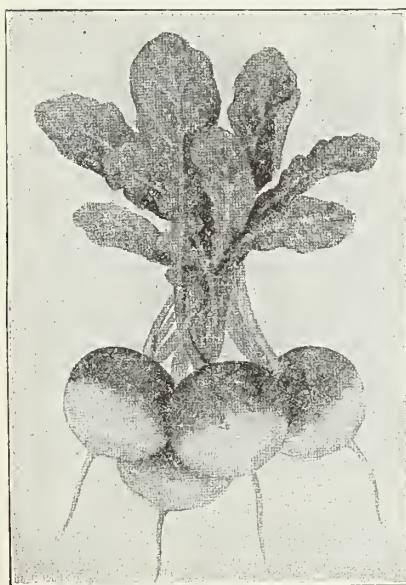
Chartier. Decidedly distinct in appearance. The color at the top being crimson, running into pink about the middle and from thence downward it is a pure waxy white.

Early Long Scarlet, Short Top. This bright scarlet, small topped sort is about six inches long, is uniformly straight, smooth, brittle and crisp, and is a standard and excellent sort for private gardens or market use.

The Cincinnati Market. The tops of this new radish are very small and may stand much closer in rows than Wood's Early Frame or Long Scarlet, without danger of running to seed.



SCARLET GLOBE RADISH



SCARLET TURNIP WHITE TIPPED RADISH

RADISH—Continued

Crimson Giant Turnip, Forcing. A variety extraordinary in that, while growing to an unusually large size, it is always tender, crisp and of mild flavor. It remains in perfect condition a remarkably long time, and unlike other forcing varieties, does not become pithy even when twice their size in diameter.

White Icicle. This handsome white variety is becoming very popular. It is similar to White Vienna but is not so long, is earlier and has a shorter leaf. We recommend it as a profitable, early variety where a long white sort is desired.

Wood's Early Frame. Shorter and thicker than the Long Scarlet Short Top, one of the very best sorts for first crop out of doors.

Small Early Yellow Turnip. Very early yellow sort.

Long White Pearl. Similar to White Icicle.

Large White Spanish. A large rooted winter variety.

Long White Vienna, or Lady Finger. A very excellent white variety with long, very smooth white roots, which are crisp and tender. It comes into use shortly after Wood's Frame and is one of the most desirable of the white summer sorts.

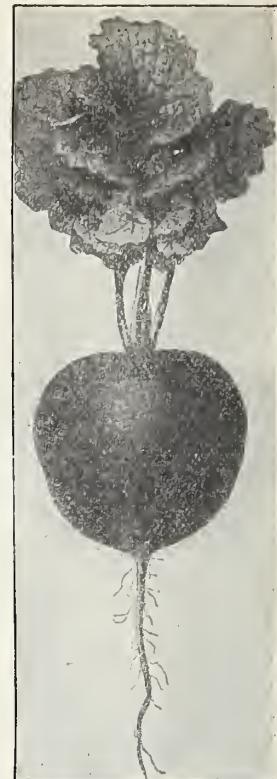
Rose or Scarlet China. Roots cylindrical, or largest at the bottom, tapering abruptly to a small tap. Skin very smooth and of a bright rose color; flesh firm, crisp, tender and quite pungent.

Round Black Spanish. Roots round, sometimes top-shaped, three or four inches in diameter; skin black, flesh white, very compact and highly flavored. An excellent sort for winter, as the roots keep a long time.

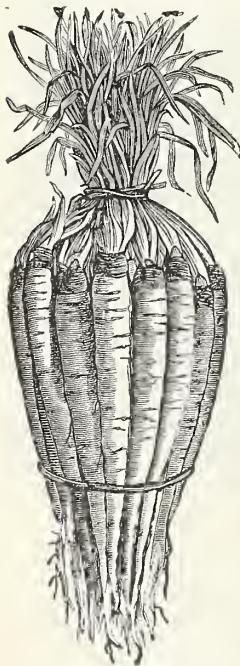
Long Black Spanish. One of the latest as well as hardiest of the radishes; an excellent sort for winter use.

California Mammoth. First introduced into this country by the Chinese in California. It is pure white, about one foot long, and two or three inches through, tapering regularly to the tip. The flesh is tender and crisp, keeping well through the winter.

White China or Celestial. A comparatively new variety which is popular wherever known. The root is long, cylindrical, with beautiful white skin and flesh so white as to attract attention, even among the other white varieties. The flesh is very tender and of excellent quality.



CRIMSON GIANT RADISH



LARGE WHITE
SALSIFY

Savoy Leaved. The earliest variety and one of the best to plant in autumn for early spring use. Plant of upright growth, with narrow, pointed leaves which are curled like those of Savoy cabbage.

Round Summer Broad Leaved. This variety is generally preferred in the North for early spring sowing, and is the most popular with our market gardeners.

Improved Thick Leaved. A variety which grows very rapidly, forming a cluster of large, very thick, slightly wrinkled leaves, recommended for market gardeners.

Long Standing. An improved, round seeded strain of excellent merit, having all the good qualities of other sorts and continuing in condition for use much longer.

Prickly Winter. A very hardy variety, and will withstand the severest weather with only a slight protection of leaves or straw.

SALSIFY OR VEGETABLE OYSTER

The long, white tapering root of salsify resembles a small parsnip, and when cooked is a good substitute for oysters, having a very similar flavor.

Culture. It succeeds best in a light well-enriched soil, which should be stirred to a good depth. Coarse and fresh manure should be avoided, as it will surely cause the roots to grow uneven and ill-shaped. Sow early and quite deep, giving the general culture recommended for parsnip. The roots are perfectly hardy, and many remain out all winter. Store a quantity for winter use in a pit or cellar in damp earth or sand.

Large White. The common variety, roots medium sized, smooth; flesh white.

Mammoth Sandwich Island. This is in every way superior to the Large White, being larger, stronger growing and less liable to branch. Invaluable to market gardeners.

SORREL

Large Leaved French. The Standard Variety.

SPINACH

Culture. Spinach a delicious green, resembling in growth a non-heading lettuce, is happily the best of tonics. As early as the soil can be worked, sow it one-half inch deep in fourteen-inch rows, using one ounce of seed to one hundred feet, and in the second week will appear a tiny plant with two very narrow leaves that do not resemble the true leaves that follow. Cutting should begin forty-five days from sowing. It is impossible to put spinach on too rich a soil, and nitrate of soda is used on it with profit.

South of the Ohio, spinach winters without protection. North, it very often winter kills with good drainage and the best of straw covering.

All spinach quickly runs to seed in the heat of summer.

Victoria. An excellent sort, which forms a very large, exceedingly thick, dark green leaf, somewhat curled in the center.

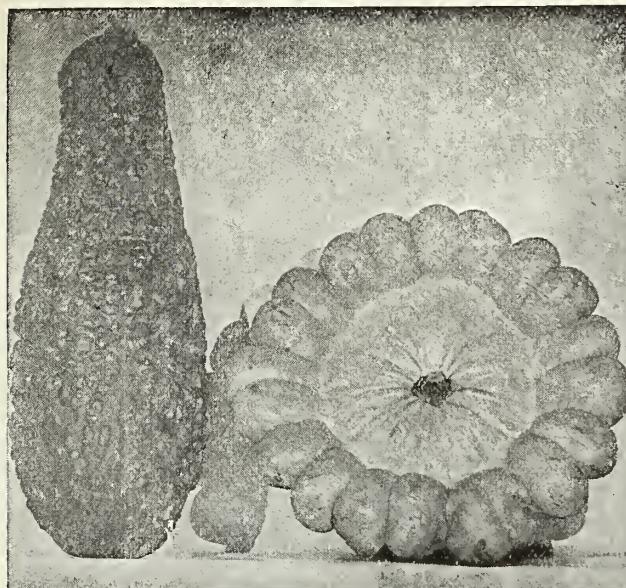
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STRAIGHT-NECK
SUMMERMAMMOTH
WHITE BUSH

Early Yellow Bush Scallop or Golden Custard. A very early, flat, scalloped variety of largest size; color, yellow; flesh pale yellow and well flavored.

Fordhook. The vines are of strong, vigorous growth and wonderfully productive. Fruits oblong in form, eight to ten inches in length, slightly rigid; smooth, thin, yellowish skin; flesh very thick and of a light straw yellow.

Giant Crook-Neck. This strain is a great improvement on the old variety of Crook-Neck. It is larger and better in every way.

The Hubbard cannot be too highly extolled as a Winter Squash; it boils smooth and dry, is of very rich quality, and keeps as solid as a rock. It is more popular with private growers than any other variety.

Leonard's Warty Hubbard. This is the best strain of Hubbard Squash. By its rough, hard, warty shell and its dark olive green color, it can be distinguished from any other strain either in the field or on the market. It was introduced by us in 1894, and since that time under different names at different places, it has been given out to all who have called for the best stock of Hubbard Squash. We have maintained its purity and offer headquarters' seed. For keeping over winter this strain is superior to all others. It is the best shipping variety and the best seller.

Golden Hubbard. This is a very distinct sort, of the shape and general character of the Hubbard, but a little smaller; of rich orange red color, instead of the dark olive green.

Boston Marrow. Is the favorite Winter Squash of the Eastern States; it is of fine flavor, and a good keeper.

Hard Shelled Marrow. The best sort for canning and drying. The fruit is very large, oval, of deep orange-red color and though quite smooth, has as hard a shell as the Hubbard. The flesh is very thick, of rich orange-red color without a tinge of green.

Delicious. This is one of the best Winter varieties. Its color is almost uniform of a green shade, with occasionally a blue specimen, it being just about as pure in this respect as was the original Hubbard. In size it also closely follows the original Hubbard, which weighed between 5 and 10 pounds. In thickness of flesh it surpasses nearly every variety, the color being a dark orange.

Orange Marrow. This is the earliest of all Winter varieties. Its distinctive feature and the one which will give it the greatest and most wide-spread popularity, is its earliness; it is at least ten days earlier than any other long-keeping sort. It grows as long as the Hubbard, and is of as good quality.

SQUASH

Culture. The directions for the planting of cucumbers can be followed with slight modifications for squash or cymling. Plant the summer squash in hills four feet apart and use before mature. Plant the winter squash in hills six or eight feet apart; handle without bruising and store in a dry, moderately warm place for winter. Plant the seed generously and thin to two or three plants to a hill. One ounce of seed plants twenty-five hills and two to four pounds plants an acre. The squash is to be recommended either for the table or the feed lot.

Early White Bush or Patty-Pan. Is earlier than any other variety of dwarf habit and very productive. Summer Squashes should always be used when young and tender, which can be determined by an impression of the nail.

Mammoth White Bush. This variety is a selection made from the Early White Bush; the improvement consists in size of the squashes it produces.



THE HUBBARD

TOMATO

Culture. The tomato requires one hundred days or more to mature from seed. As tomatoes are killed by other than light frost, early tomatoes should be started in hot beds two months before they may be transplanted out of doors. Three weeks later these plants may be potted or given a space of four by four inches in the hot-beds. Before setting in the field, which is May north of the Ohio, the plants should be gradually exposed to the outside conditions and the quantity of water given them decreased. Transplant on a cloudy day if possible, and water freely. Nitrate of soda may be given each plant at this time with profit.

A space of four by four feet should be given each plant in the field or more for robust varieties, except that where they are carefully pruned and trained, which is unnecessary, they may be planted as close as two by two feet. One ounce of seed gives two thousand plants.

Leonard's Early Market. A very prolific early red variety.

Atlantic Prize. Small, irregular, bright red; extremely early.

Early Michigan. One of the best second early sorts. Fruit crimson-scarlet.

Royal Red. One of the best red main crop sorts.

Optimus. One of the best table tomatoes in quality. Fruit medium sized and of bright crimson-scarlet color.

Dwarf Aristocrat. Upright growth; bright red fruits.

Dwarf Stone. As its name implies this is a dwarf variety bearing fruits similar to that popular canners' sort, the Stone.

Volunteer.

Livingston's Perfection. In our opinion identical with Paragon.

Stone. Large, smooth, solid, scarlet, highly recommended.

Chalk's Early Jewel. We consider this one of the very best early tomatoes yet introduced. Vine vigorous and very productive. Fruit deep scarlet-red.

Crines June Pink. A fine new variety. It is highly recommended to gardeners whose trade demands the purplish pink sorts. It is the earliest of this class of tomatoes and fills the place in them that Earliana does in the bright red sorts.

Earliana. Vine similar in growth, maturing bulk of crop as early as Atlantic Prize, but the deep scarlet fruit is larger, distinctly smoother, solid and of very good quality. Early, smooth and of a large size it is a particularly profitable tomato for market gardeners.

Red Rock. An extraordinarily solid, smooth, very red tomato; a very heavy producer, of excellent shape and very superior texture and flavor. An excellent variety for truckers and canning factories on account of its shape, quality and productiveness. This tomato is very free from cracks, has a very shallow stem attachment and is practically smooth. Fruits will probably average from 8 to 9 ounces. Borne in clusters of from 4 to 7 fruits, and ripens in 110 days from sowing of seed.

Ignotum. A very good red fruited variety.

Paragon. The well-known standard bright red tomato.

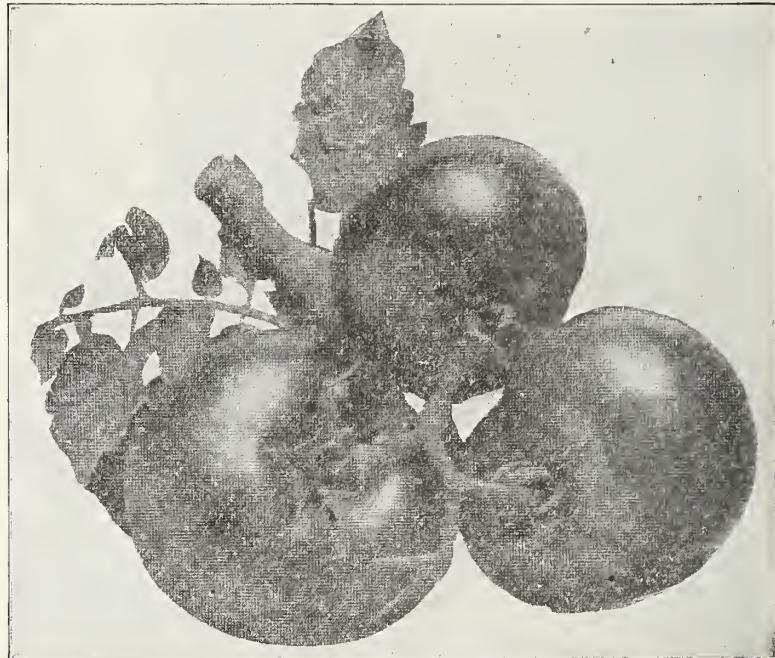
Trophy. Very large, solid, and generally smooth; bright red.

Honor Bright. First white, then brilliant scarlet; extremely solid.

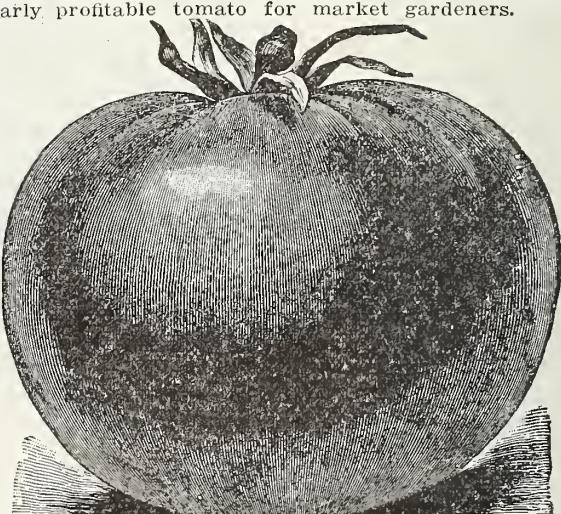
Aene. The well-known popular standard bright pink tomato.

Livingston's Beauty. Large, solid, smooth; purplish pink.

Livingston's Favorite. Bright red, smooth, of good size.



CHALK'S EARLY JEWEL



EARLIANA

TOMATO

Livingston's Globe. Another new variety of exceptional merit. It is of beautiful globe shape, with quite a percentage of elongated (stem to blossom) fruits, which permits a greater number of slices being taken than with flat fruited sorts. Color a beautiful glossy rose, tinged purple.

Dwarf Champion. A purplish pink variety forming a strong, erect, bushy plant two feet high. Often sold as tree tomato. Fruit smooth, medium sized, fairly solid and of good flavor.

Ponderosa. A purplish pink tomato of largest size. Vine vigorous and very productive. Fruit very solid, fairly smooth and considered of very good quality, especially by those who prefer a tomato quite free from acid.

Dwarf Giant. A very large fruited Dwarf Champion.

Greater Baltimore. A splendid variety for canning, similar to Stone.

Tenderloin. Similar to Ponderosa.

Turner Hybrid or Mikado. Large-fruited purple; potato leaf.

Imperial. Large purple-fruited, early.

Essex Early Hybrid. Similar to the Acme, fruit purplish pink, always smooth and handsome; in quality is classed with the best.

Buckeye State. One of the best purplish pink varieties. Vine exceptionally strong growing and vigorous and growers in some sections of the south claim that it is blight proof. It should be given more room than most. Fruit very large, round, smooth and firm. An excellent shipper.

Magnus. A variety with potato leaved foliage, producing purplish pink fruit of the largest size; much smoother than most of the large fruited sorts and matures earlier.

Crimson Cushion. A large fruited variety; smooth on the top but inclined to curve at the ends making an indenture at the stem. Color a glossy crimson tinged pink. Fruit ripens evenly, except toward the stem where it ripens somewhat slowly. A very solid heavy tomato.

New Coreless. This variety has less indenture than any other of the red varieties. It has no corrugations at stem end, and absolutely no green core; for these reasons it is a model variety for canning and catsup.

Model Tomato. A new variety. Foliage is very large, broad, very deep, dark green, and is heavily blistered. The fruit is first-class in size, smooth, very neat, and of best quality. Color, deep, brilliant scarlet.

Yellow Cherry. The small yellow fruits, borne in clusters, average half an inch in diameter.

Red Cherry. Little fruits of a bright scarlet color.

Strawberry or Husk Tomato. Plants of low-spreading growth and immensely productive. The small yellow fruits are each enclosed in a husk. Of very sweet flavor, highly esteemed for preserving or making pies.

Golden Queen. Fruit large and smooth; color a beautiful golden yellow, sometimes with a slight blush of red, as smooth and well shaped as the best of the red varieties and of superior flavor.

Red Pear-Shaped. This is a leading favorite for preserves and also to make "tomato figs." The fruit is bright red, of true pear shape, and of rich distinct flavor.

Red Currant. Small sort growing in clusters.

Red Peach. Shaped like a peach and has the peach appearance.

Yellow Peach. Same as the red peach except color.

Yellow Pear. Pear shaped; yellow.

Yellow Plum. Plum shaped; yellow.

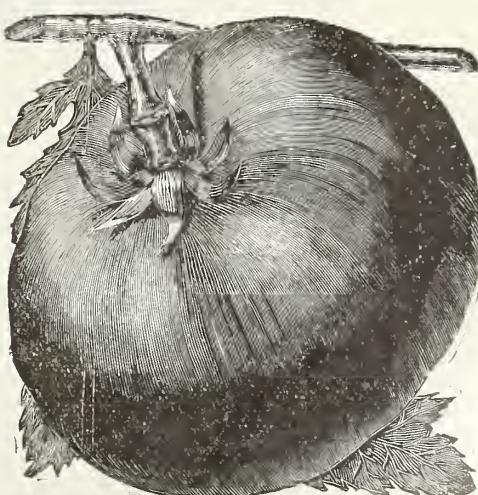
Trucker's Favorite. The finest large-fruited purple tomato. The fruits continue of large size to the very last and are always unexcelled for slicing or cooking.

Success. The vines are of strong, vigorous growth with abundant foliage. The fruits, set in clusters, average 3 inches in diameter and 2 to 2½ inches through from stem to blossom end. Color brightest scarlet; perfectly smooth; very meaty, of fine flavor.

Matchless. The best large-fruited bright red tomato. Matchless is well worthy of its name; beauty and symmetry of form it is indeed without a fault.



LIVINGSTON'S GLOBE



MATCHLESS

TURNIP

Culture. While the main crop of turnips is planted in July north of the Ohio, more turnips should be grown in early spring. Seed may be broadcast on the few soils freed of weeds, but it is more advisable to sow in one or two-foot drills, cover less than one-half inch and thin to stand six inches apart in the row. Use one-half ounce of seed to one hundred feet of row and two pounds to the acre. The turnip requires one-half more seed when broadcast than in drills and the salad turnip requires one-half more seed than the turnip sown for a root crop.

Extra Early White Milan Turnip. The Purple Top Milan is one of the most popular turnips for spring sowing, but in this new sort we have a splendid extra early turnip in which the extreme earliness, small top and tap root of the Purple Top Milan is united with clear white skin and flesh.

Pomeranian White Globe. This is one of the most productive kinds, and in good, rich soil roots will frequently grow to twelve pounds in weight. It is of perfect globe shape; skin white and smooth; leaves large and dark green.

Purple Top White Globe. An early variety. Globe shaped; heavy cropper. In other respects similar to the Red Top Strap Leaf. A handsome looking bulb, and is rapidly taking the lead of all other varieties of early turnips for market garden purposes.

Extra Early Purple Top Milan. The earliest in cultivation, two weeks earlier than Purple Top Strap Leaf. The bulb is flat, of medium size, quite smooth with a purple top.

Cow Horn. This variety is pure white, except a little shade of green at the top, and is carrot-like in form, growing nearly half out of the ground, and slightly crooked.

Early Snowball. A perfectly globe shaped, white skinned turnip. It is exceedingly productive. The flesh is fine grained, firm and of very delicate flavor.

Early White Flat Dutch. An excellent garden variety. The best for spring sowing.

White Egg. Belongs to the class of quick growing fall turnips, and for this purpose should be sown, in this latitude, between August 10 and 25.

Large White Norfolk. The standard variety for field culture for feeding stock. Very large size.

Sweet German. This variety is very popular in many sections, notably so in the New England states.

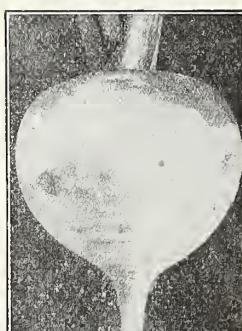
Seven Top. Cultivated extensively in the South for the tops, which are used for greens. It is very hardy and will grow all winter.

Purple Top Munich. The earliest variety after the Red Top Milan.

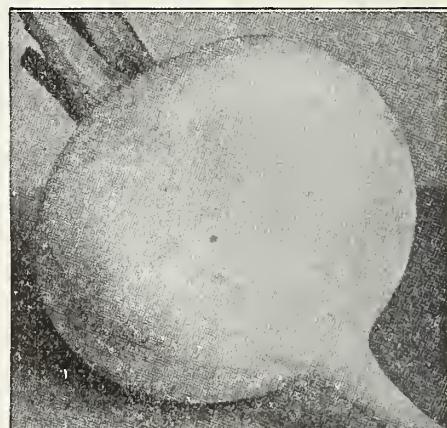
Purple Top Strap Leaf. Rapid grower and mild flavor, the most popular variety for early use, either for the table or stock.



EARLY SNOWBALL



PURPLE TOP GLOBE



LARGE WHITE NORFOLK

YELLOW FLESH SORTS

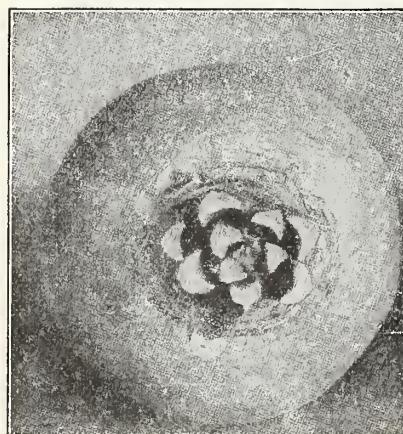
Yellow Aberdeen. Very hardy and productive, a good keeper; globe shaped. Color pale yellow, with purple top. Very firm in texture, and closely resembling the Rutabaga in good keeping qualities. Good either for table or stock.

Large Amber Globe. One of the best varieties for a field crop for stock. Flesh yellow, fine grained and sweet; color of skin yellow; top green. Hardy, keeps well, a good cropper. Very popular in the South.

Yellow Stone. A very desirable sort. The roots are of medium size, uniformly globular and perfect in shape. Smooth skinned and of pale yellow color. The flesh is crisp, tender and of fine quality.

Yellow Globe. Very similar to the Yellow Stone and a very attractive sort.

Orange Jelly, or Golden Ball. Undoubtedly among the most delicate and sweetest yellow fleshed turnips yet introduced. Not of a large size, but firm, hard and of most excellent flavor. Keeps well and is superior as a table variety. It is extensively used.



YELLOW ABERDEEN

RUTABAGAS

Culture. Rutabagas, or Swedish Turnips, with their superior keeping qualities, had best be drilled a month earlier than other turnips, given eighteen to thirty-inch rows and thinned to stand six to twelve inches apart in the row.

Improved American. The best yellow fleshed, purple top variety grown for stock or table.

Bulldong's White Rock. Though sometimes called a turnip this is more like a rutabaga. The root is large, both skin and flesh very white, and is one of the best varieties we have for table use. An excellent keeper and a desirable sort for market gardeners.

Bangholm. A very superior variety, both in form and quality, and held in high estimation in many parts of England. Of large size, small neck, few or no side roots, and yields well. Flesh yellow, sweet and solid; skin yellow with purple top.

White Rutabaga. This variety is now very extensively cultivated, and preferred in many sections for its white flesh. It is very hardy and productive, keeps well until late in the spring, and is highly esteemed for its sweet, delicate flavor.

Sweet German. A superior variety for table or stock. Flesh firm, sweet and juicy.

Laing's Improved. One of the earliest of the rutabagas. Forms a handsome bulb of good quality. Keeps well; good for table use.

Long White French. A very delicate flavored variety. An excellent keeper and fine for table.

Skirving's Purple Top. A very heavy cropper. One of the best for field culture.

Carter's Imperial Hardy. An English variety resembling the preceding. Very productive and of fine quality.

Monarch or Tankard. This is a yellow fleshed sort having very large tankard shaped roots, with relatively small necks and tops. Color purplish crimson above ground, yellow below; flesh very solid, fine grained and of the best flavor. This very popular variety is also sold as Hurst's Monarch and Carter's Elephant.

Drummond's. An improved strain of purple top Swede, excelling in uniformity of shape, color and quality. Considered by many an excellent table sort.

A GARDENING NOTE

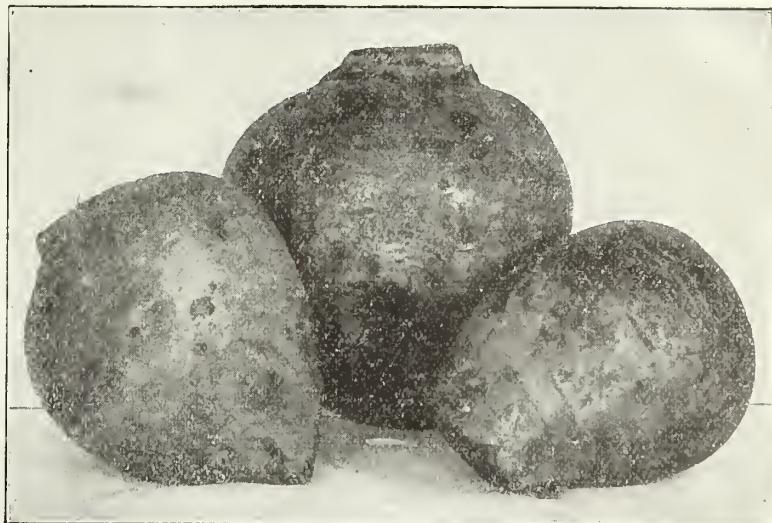
While it is in a way true that anyone can garden, intelligence tells more quickly in agriculture, possibly, than in any other line of endeavor. Yet so many and varied are the ways of reaching a result in agriculture that no two experienced and successful growers would agree entirely upon the treatment of a crop or a piece of land. It does not follow that either grower is right or wrong. We would rather say that in the agricultural sea there are many good pilots with well charted courses and bid them "bon voyage."

See each plant in the garden as an individual. Give to each plant the space and perfect condition that it as a plant alone would succeed best with. Beyond this idea that there exists only individuals, we do not see how it is possible for a gardener, a seed firm or a government to pass. With this conception it is easy to begin gardening. Begin your work leisurely with a few seeds and a few plants. As the work progresses speed in planting and cultivating will quickly be acquired. Do not think of gardening as difficult either physically or mentally. It is the one work that may be made as simple or as complex, as easy or as strenuous, as anyone may require.

Those unacquainted with gardening frequently think of the sowing as in the spring and the harvest in the autumn. In few investments are returns so quickly possible. Edible radishes are frequently pulled in a month from planting. Nor is it necessary or advisable to wait till a late date to begin the planting of seed. Spinach planted the first of April north of the Ohio should go to the table May 15th or earlier. Lettuce also planted on All Fool's Day can all be used by June 1st. Peas planted at this same early date give for the effort that great delicacy June Peas.

Long after Winter cold seals the garden there may be in the cellar or in pits out of doors radishes, turnips, carrots, parsnips, beets, cabbage, celery, witloof-chicory, kohl-rabi, onions, pumpkins, squash, salsify, rutabaga and potatoes. Many vegetables are possible till vegetables grow again upon the earth. Only the gardener need never go hungry.

If one is so unfortunate as to be delayed in securing a garden till in midsummer in the North even then the garden may be compelled to give much. The planting should be hurried and where the time till frost is very short for the variety the early quick maturing kinds are the ones to be used. On the 20th of July we can still expect radishes, beets, turnips, kohl-rabi, lettuce, spinach, beans, peas from seed and endive from plants.



IMPROVED AMERICAN RUTABAGA

Hotbeds. While early in the year plants may be started in a sunny window, it is of profit and advisable to use hotbeds and cold frames for even a small garden. From the first to the latter part of March is quite early enough to make a hotbed. The time must vary according to the latitude. Provide a quantity of fresh horse-manure from the stables, and add to this, if they can be had, one-third to one-half of its bulk of leaves. Mix them thoroughly, tramping down the mass in successive layers, and form into a large pile, so that fermentation will proceed, even in severely cold weather. In two or three days fermentation will be apparent by the escape of steam from the heap. Now turn again, and allow the heap to remain two or three days longer, or until the second fermentation commences. Make an excavation or pit $2\frac{1}{2}$ feet deep, and of a size suited to the number of plants required. The pit will be better if built up of brick. It should be made in some dry, sheltered spot, facing the south or east, if possible. Hotbed sashes are usually 3x6 feet, and one or two sashes will give early plants enough for a small family. The frame for sashes should be 18 inches high at the back and 12 inches in front, which will give the proper slope to catch the sunlight. Cross-pieces should be placed for the sashes to slide on, to facilitate opening and shutting the frames. When everything is ready, the manure is placed in the pit and trodden down firmly in layers to the required depth, 2 to $2\frac{1}{2}$ feet. Then put on the sashes, and keep the pit closed until the heat arises. At first it will probably be 100 degrees or more, which is too hot to sow the seed in; but in two or three days it will subside to 90 degrees or a little less, when the soil may be put on to the depth of 6 to 8 inches. The heat may be readily ascertained by plunging a thermometer into the manure. The soil should be of well-rotted sod (or common garden soil will do), mixed with about a third of fine old manure; and in this the seeds may be sown thinly in drills 2 to 3 inches apart, and afterward (as soon as out of the seed-leaf), either thinned out or else transplanted to another frame. Air must be given every mild day by raising the sashes at the back. Water with tepid water whenever necessary, and during cold nights and snow-storms keep covered with mats or board shutters. Tomatoes, Peppers and Eggplants should be sown in a separate frame from Cabbage, Cauliflower and Lettuce, as they require more heat. The same directions may apply to hotbeds made on the surface of the ground, except that the manure should be at least a foot wider on all sides than the frame.

Cold Frames are simply frames with tops of glass or cloth set on the ground, no bottom heat being applied. It is banked up on the outside during the winter with marsh hay, straw or coarse litter. The soil is prepared by forking in and thoroughly mixing to the depth of 10 or 12 inches a liberal quantity of old, well-rotted manure. The manure of an old hotbed is good for the purpose. The frame is prepared in the fall, and young Cabbage, Cauliflower and Lettuce plants are set out in it in time to get well established before very cold weather. Cauliflower and Cabbage should be set down to the first leaf, and the soil made firm around the plants. The seed is usually sown, in this vicinity, from the 15th to the 20th of September. The young plants will be ready to transplant in about 25 to 30 days. During cold nights and stormy days the beds should be closely covered with the sashes, and these further protected by straw mats or shutters. Cauliflower needs more and closer protection than Cabbage, and it is rather more tender. During mild days admit air freely, the object being to keep the plants in a dormant state, without actual freezing, so that when spring comes, they are in a forward state for setting out. Seeds of Cabbage, Cauliflower, Lettuce and Radish may be sown in a cold frame in the spring from the last week in February to the first week in March. The frame should stand in a warm and sheltered spot, and be kept from freezing by mats or a thick covering of straw during cold nights.

Even before the hotbeds are made or the first seed purchased the garden should be planned on paper.

If the garden has not been drained, preferably by tile, and there are very few pieces of ground that do not need drainage, an effort should be made to get rid of the surplus water so that the soil may warm up rapidly and bacterial life so necessary to plant life begin.

Frequently the application of lime or lime stone is more necessary than the application of commercial fertilizer and this question, too, must be answered early.

Stones and stumps, along with trees of no value, should be removed from the garden, and every effort possible made to get ready for the rush that comes with spring planting. There are easy ways as against the difficult ways of gardening, and from time to time the work should be carefully thought over with the idea of saving every effort possible. First of all, the vegetables should be planted in long rows so with a wheeled tool like the Perfection Garden Cultivator one can quickly cultivate the garden without stooping. It is also possible now to set plants while walking in an upright position and avoid the back-aches of other years by using a Masters Rapid Plant Setter. Tools like these should be secured before the day they are needed.

MASTERS RAPID PLANT SETTER

THE OPERATION



of our Plant Setter is very simple. You mark off your land both ways, then haul out a few barrels of water (about two barrels to the acre is usually enough), place these barrels on the headlands and have a few thousand plants all ready pulled, and place a good box full on the headland at the water barrels.

THE MAN who is going to do the setting simply needs a common grape or peach basket with the handle cut off entirely, then pass a leather strap or stout cord through one side of the basket and fasten same around your waist; take the Planter in your right hand and have it nearly full of water and start down the row, putting in a plant at every mark clear across the field; fill up your basket with plants at the end of every row, also your planter with water, and thus keep going back and forth across the field all day, and in ten hours any ordinary farm hand can set 10,000 to 12,000 plants and when a man gets well used to the Planter and has his land in the best condition possible he can set 15,000 plants per day without special effort.

Makes transplanting EASY, PLEASANT WORK and will produce a perfect stand of plants and a better quality crop.



MISCELLANEOUS GRAINS AND FARM SEEDS

SEED BARLEY

Six Rowed Barley. An early variety with a plump head on stiff straw.
Highland Chief. This popular two rowed barley is one of the best of the standard sorts.
Manshury. A long headed, six rowed variety that is well and favorably known.
Oderbrucker. A six rowed, heavy yielding barley that is high in protein.

SOJA BEAN, OR COFFEE BERRY

This valuable forage plant is one of the most nutritious of all vegetable products. It will produce a crop of 20 to 30 bushels per acre, and is as easily grown as other beans. For pasturing or feeding as green fodder it is very valuable, and nearly equal to clover for fertilizing. The Soja Bean, if used green and hulled as the Lima Bean is used, resembles the Lima very closely and it is probable it will be used extensively here as a vegetable as it has been long used in the Orient.

BROOM CORN

Tennessee Evergreen. More largely grown in the Western states than any other. The brush is noted for its fine quality, good length and handsome appearance. Cut before the seed is ripe, it is a beautiful pea green color.

Missouri Evergreen. Has coarser brush than the Tennessee and is therefore desirable for making heavy brooms.



SEED BUCKWHEAT

Japanese. The kernels are at least twice the size of those of any other variety, and of a shape peculiar and distinct from all others. The color of the kernels is also most distinct, being a rich, dark shade of brown. The straw is heavier, very branched, and does not need to be sown as thickly as other kinds. The quality is excellent and the yield is enormous. It is about a week earlier in ripening than the Silver Hull.

Silver Hull. This improved variety is much better than the old sort. It is in bloom longer, matures sooner, and yields double the quantity per acre. The husk is thinner, the corners less prominent, and the grain of a beautiful light gray color. The flour is said to be better and more nutritious.

FLAX

Russian. We have some very choice seeds of this, much superior in every way to common flax. It will increase the yield and add to the value of the product. Most of the flax of the country is badly run out. It will pay you well to secure some new seed.

KAFFIR CORN

Kaffir Corn. One of the best forage plants. If the crop is wanted mainly for fodder, it is recommended to cut down the whole stalk when the first seed heads come into bloom. The second growth springing at once from

the roots will still mature (in climates similar to Central Kansas) a full crop of grain and a second full crop of forage before the middle of October. Sow in rows 3 feet apart, 3 to 6 pounds of seed to the acre.

MILLET SEED

Siberian. A new and wonderfully productive forage plant from Russia, which has given excellent results in the United States.

Pearl. (*Penicillaria Spicata*.) A valuable fodder plant for the South; is enormously productive. Sow in drills eighteen inches apart, and 8 to 10 pounds to the acre.

Hog. Known also as Broom Corn Millet. Quite unlike the German and common millet in habit of growth as well as the appearance of the seed, which is much larger. The name, Hog Millet, has been employed to emphasize the use to which it is now being put as an economical and valuable food for hogs.

Japanese Barnyard. (*Panicum Crus Galli*.) This wonderful and valuable new forage plant was introduced into this country by Prof. Brooks, of the Massachusetts agricultural experiment station.

Common. (*Panicum Miliaceum*.) Requires a dry, light, rich soil, and grows two and one-half to four feet high, with fine bulk of stock and leaves, and is excellent for forage. Sow broadcast from May 1 to June 20, if for seed, or until the last of July, if for hay.

German or Golden. This variety is not so early as the Common millet, but yields a much larger crop.

Hungarian Grass. (*Danieum Germanium*.) A valuable forage plant. Succeeds well on dry, light soil. Withstands the drought remarkably.

OATS

Extra Select White. The choicest of white oats that reach Chicago markets.

Northern White Swedish. A pure white, plump grain with stiff straw.

Black Tartarian. Probably the most widely used of the Black Oats.

MISCELLANEOUS GRAINS AND FARM SEEDS



ONE OF THE BARNYARDS ON OUR LA GRANGE FARM

CANADA FIELD PEAS

"Peas could be made to bring more nitrogen to the soils of this country every year than is now purchased annually by the farmers at a cost of millions of dollars."—Year-book of the U. S. Department of Agriculture.

For the Northern States there is no crop of greater value than Field Peas and none is more neglected, which can only be attributed to a lack of knowledge as to its merits. Whether for fodder, in mixture with oats, sown at the rate of two bushels each per acre, or the peas sown alone at the rate of three bushels per acre for plowing under, there is no crop that we can so strongly recommend for more extended culture.

White Canada. More used than any other.

Blue or Green. Like above except that color is a bluish-green.

COW PEAS

Black Eye. Seed large, round, oblong, creamy white, with a large black eye.

Whip-Poor-Will. The seeds are large, speckled brown in color.

PEANUTS

If you garden for profit or garden for pleasure, few things will outrank the peanut. Unlike many things grown in gardens, every part of the plant is useful and new uses for it are rapidly being found. While it thrives best on a sandy loam, it grows well in many soils, also ranking high as a soil improver. The quantity of vine is frequently two tons to the acre and the vines have a superior feeding value.

Three pecks of unshelled peanuts should be used per acre, later giving level and thorough cultivation.

Virginia. The common easily grown peanut of the South. The nuts are of good size and the kernels large. Plant the nuts two inches deep and eight inches apart in three-foot rows.

Jumbo. Though not so early as some, it is the most profitable kind to grow. The plant has a more erect habit than others and the nuts are very large. On account of its luxuriant growth, plant it in rows four feet apart.

SEED RYE

Fall or Winter. The time for sowing is from the middle of August to the last of September. One plowing is given and the seed sown broadcast at the rate of one and one-half bushels per acre and dragged in. Harrowing and rolling in the spring are recommended.

Spring. Although this grain is often planted by farmers, especially for the paper makers, who prefer it to any other, its principal value is as a "catch" crop, to sow where winter grain has failed.

MISCELLANEOUS GRAINS AND FARM SEEDS

DWARF ESSEX RAPE

A forage plant of great merit, easily grown in any part of the United States, on any land that will raise turnips or corn, and will furnish abundant supplies of succulent, rich, nutritious pasture, at a season when it is most needed. It is of great value for sheep and lambs, and when turned on it, to use a common expression, "they soon weigh like lead." It is also of value for pasturing cattle. One acre of rape is sufficient to pasture ten to fifteen lambs for two or two and one-half months. It is often sown broadcast, about five pounds to the acre, but will yield much better if drilled about two pounds to the acre, in rows twenty-two inches apart, and cultivated until plants are too large. Seed may be sown in May, but we do not advise sowing until June or July. Can, however, be sown with grain in the spring, and is said not to interfere with the grain crop.

WILD RICE (*Zizania Aquatica*)

The only one of our native plants furnishing food for wild fowl, ducks, geese, etc., which has been made an article of commerce. This seed can be sown on the borders of lakes, ponds and along small streams to great advantage, attracting all of these wild birds from September on.

SUGAR CANE

Early Amber. Its early maturity adapts it almost to every section. It has given entire satisfaction wherever introduced as a profitable crop for fodder as well as for sugar-making.

Orange. Later than Amber, but of very heavy growth and used for stock feeding.

RUSSIAN SUNFLOWER

This is highly prized by poultry raisers and farmers as a cheap food for fowls. It is immensely productive and can be raised cheaper than corn, as any waste piece of ground will suffice. It is the best egg producing food known.

TOBACCO

Pennsylvania Seed Leaf. This is the variety mostly grown for cigars, and is of fine quality and excellent flavor.

Persian Rose. A fine brand for cigars. Sells well.

Yellow Pryor. A fine yellow sort, and succeeds well where others fail.

Blue Pryor. This is the genuine article and a good sort.

General Grant. Very early, and a good yielder.

Connecticut Seed Leaf. The best sort for cigar wrappers. Try it.

Havana. This is the genuine article, and is first-class.

Ohio. White leaved. A large yielder.

VETCHES

Sand, Winter or Hairy. (*Vicia Villosa*.) This variety thrives on poor, arid, sandy soils. It is sown either in fall or in spring, and generally mixed with rye, which serves as a support to the plants. It grows to a height of from 3 to 4 feet, and can be cut twice for fodder, first as soon as the bloom appears, and then it can be again cut for the seed. The plant is perfectly hardy, and the produce is recommended as most nutritious. The seed is black and perfectly round, and should be sown at the rate of one and one-half bushels to the acre.

SEED WHEAT

Velvet Chaff Blue Stem. This is a very superior milling wheat. It is the most popular in many of the spring wheat growing sections.

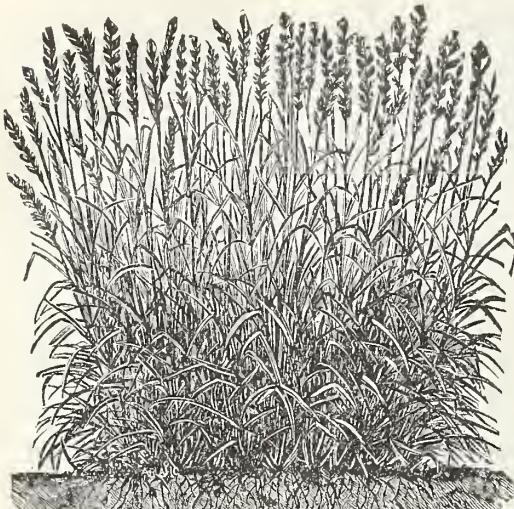
Saskatchewan Fife. This well-known standard variety has been widely grown for many years, and it is still as popular as ever.



WINTER OR SAND VETCH



GRASS SEEDS



ITALIAN RYE GRASS

Canadian Blue Grass. A very hardy perennial grass that grows six to twenty-four inches high. Used on hard clay or other poor soils for pasture and dairy purposes.

Creeping Bent. (*Agrostis Stolonifera*.) An excellent variety for lawns and pastures; succeeds well in damp soils.

English Rye Grass. (*Lolium Perenne*.) A very nutritious, rapid growing variety, valuable for meadows and pastures. 24-pound bushel.

Hard Fescue. (*Festuca Duriuscula*.) Similar to Sheep's Fescue, but not so dense, and growing somewhat taller.

Meadow Fescue, or English Blue Grass. (*Festuca Pratensis*.) A perennial grass from 2 to 4 feet high, with flat, broad leaves. This is one of the standard European grasses. It needs rich ground, and succeeds well on prairie soil.

Sheep's Fescue. (*Festuca Ovina*.) A small, tufted, hardy grass, forming a cluster of narrow, cylindrical leaves, of value in mixture for lawns or dry soils and under shade.

Tall Fescue. (*Festuca Elatior*.) A valuable perennial grass, very productive and nutritious.

Italian Rye Grass. (*Lolium Italicum*.) A valuable European variety, adapted to any climate, and produces large and nutritive crops. 18-pound bushel.

Kentucky Blue Grass. (*Poa Pratensis*.) It is the best pasture for our climate and soil, succeeding finely on hill lands and producing the most nourishing food for cattle. Fancy clean seed.

Orchard Grass, or Rough Cocksfoot. (*Dactylis Glomerata*.) This is one of the most valuable and widely known of all pasture grasses, coming earlier in the spring and remaining later in the autumn than any other.

Red Top. (*Agrostis Vulgaris*.) A valuable grass for moist soils and low lands. It is a good, permanent grass.

Soudan Grass. A late introduced annual grass that is probably a wild form of the Sorghum. It may be broadcast, drilled or cultivated in rows. Five to twenty pounds of seed will be required per acre, according to method of cultivation and under the various conditions will grow three to seven feet high. This drouth-resisting plant yields at two or three cuttings two to four tons of easily cured, dry hay of high feeding value.

Timothy. (*Phleum Pratense*.) This is decidedly the best grass for hay, making a large return on strong, rich clay, of medium state of moisture.

CLOVER SEEDS

Whether you cultivate a large or small area, do not neglect the use of clover. With a quarter of the garden in clover each year, the profits of that garden will not be lessened, but increased.

Alfalfa or Lucerne. (*Medicago Sativa*.) The value of this perennial clover-like plant can hardly be overestimated. It is the most nutritious of all forage crops and sinks its stout tap root four to twenty feet deep in quest of water and fertility. Its deep rooting, coupled with its great ability as a nitrogen-gatherer, makes it the very best of soil improvers. The plant grows one foot to four feet high and over a period of twenty-five years. This hay is equal in feeding value to wheat bran. For the growing of alfalfa, twenty pounds of seed may be drilled, or broadcast per acre. The grower should remember that alfalfa will not live on wet, sour soil, and a firm, weedless seed bed is required. The young alfalfa plant is as weak as the mature plant is robust and strong.

Medium Red or June. (*Trifolium Pratense*.) This is by far the best known and now the most important of all varieties of clover for the practical purposes of agriculture. Sow at the rate of ten to twelve pounds per acre.

Mammoth or Large Red. (*Trifolium Pratense Perenne*.) Called also Pea Vine or Sapling Clover. Similar to Red Clover but taller, coarser and more hardy. It will grow on poor, thin soils where other clovers would fail, and is the best for reclaiming exhausted lands.

Alsike or Swedish. (*Trifolium Hybridum*.) A small seeded perennial clover that has been rightly advertised as "the best for cold wet land," but is likewise a great drouth-resisting plant. While it does not grow tall, it is finer than Red Clover, so that horses and cattle prefer it. The blossoms furnish the best of bee pasture.

Crimson or Scarlet Clover. (*Trifolium Incarnatum*.) An erect growing annual, with long scarlet blossoms. It can be seeded at any time from June to October at the rate of fifteen to twenty pounds per acre.

White Dutch. (*Trifolium Ripens*.) A small creeping, spreading perennial variety, with a fragrant white blossom. It adapts itself to a wide variety of soils and climate and is valuable for lawns and pasture.

Bokhara or White Blossom Sweet Clover. (*Melilotus Alba*.) "No other agricultural plant is capable of maintaining itself under such great range of climatic conditions." This stiff stemmed biennial, with fragrant, small, white flowers, grows six feet high. It has long grown wild in many places, and until recently was considered a troublesome weed. Lately its worth has been understood and we rank it high as a soil improver, as a cleaning crop and for hay. One of the best uses of this plant is as a crop to prepare the soil for alfalfa, as the bacteria that live upon the two plants are the same.

Yellow Blossom Sweet Clover. (*Melilotus Officinalis*.) An earlier and not so robust a variety as the White Sweet Clover. Has no value.

We recommend the White Blossom Sweet Clover, and warn our patronage that there is a yellow annual variety that has no value. This annual we do not handle.

LEONARD'S LAWN MIXTURES



CHICAGO PARKS LAWN GRASS

Your outdoor carpet should be of an even colored grass that grows so close that weeds cannot get through. Think of your lawn as a number of plants, not "just grass." These lawn plants ask what other plants require; good drainage, a soil of a fit quality, the addition of lime where soil is sour, deep preparation by spading or plowing, the addition of fertilizers before planting and from time to time afterwards as the plants continue to feed, and good seed. Where manure is used at any time it should be thoroughly decomposed and free from weed seed and a complete fertilizer at the rate of 500 pounds to the acre is advantageous.

Seeding had best be done in the spring or fall. Be careful to have the entire surface as near alike as possible that the grass may be even in its growth and finish by using a fine rake and a heavy roller. Seed heavily. Use seventy-five pounds of the best lawn mixture to the acre, or one pound to three hundred square feet. Sow the seed carefully on a calm, dry day and rake lightly.

Cut the lawn frequently, setting the machine to cut as high as possible, and as weeds grow where grass seed is not sown, weeds will grow in your lawn and some of them it may be necessary to dig out with a knife.

In very dry weather a thorough wetting should be given about once a week, a little water on a dry surface doing more harm than good.

Each spring after the winter heaving of the lawn by frost is over, the lawn should be raked while the soil is wet.

Leonard's Chicago Park Lawn Grass Seed. This is positively the highest grade mixture that can be prepared. It is composed of the seed of the finest English and American grasses with White Clover so that with even ordinary care it cannot fail to make a beautiful lawn. For quickly producing a permanent thick and velvety sward this brand cannot be excelled.

Shady Nook Lawn Grass. Usually it is quite difficult to obtain a satisfactory growth of grass under trees and in shady places. For sowing in such places we recommend the use of this special mixture. It will quickly produce an abundant and even growth of beautiful green grass.

Terrace Lawn Grass. This is a special blend for Terrace and Embankments.

GOLF LINK MIXTURES

There is no use to which a grass mixture is put that is so exacting as that used for pleasure grounds, golf links, etc. No other turf is required to stand such wear and rough usage. Hence the necessity of sowing such grasses as will produce a thick and healthy growth, and withstand the tramping of many feet.

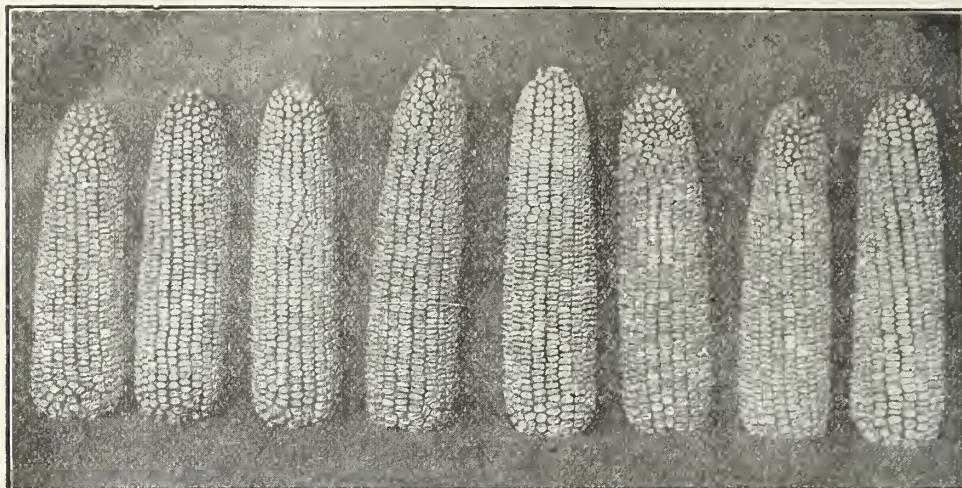
Leonard's Putting Green. Prepared for this one purpose only of fine bladed grasses which do not form clumps.

Leonard's Fair Green. This mixture contains the seed of permanent hardy grasses which will not winter kill and will stand great wear.



TERRACE LAWN GRASS

FIELD CORN



AVERAGE EARS BIG WHISKEY FIELD CORN

Big Whiskey Yellow Dent. A splendid new variety, large ear, deep grain, small cob; very prolific, 100 days.

Extra Early Huron Dent. One of the earliest of the yellow dent varieties, 90 days.

Pride of the North. This famous corn still retains its popularity; an exceedingly early and prolific variety, always maturing in ninety days; often shelling sixty-two pounds of grain from seventy pounds of ears. Kernels closely set, large, of deep orange color; cob very small and red; stalks about seven feet in height. This is, probably, the best Dent corn for general cultivation in the north.

Iowa Gold Mine. A splendid yellow corn. Everyone who has tried it is enthusiastic in the praise of this splendid variety which was introduced in 1892. It has everywhere received the most cordial endorsement as one of the best and most profitable varieties ever grown.

Iowa Silver Mine. The Iowa Silver Mine is a splendid white corn. In 1894, the poor corn year, it yielded at the rate of ninety-seven and one-third bushels to the acre. It has no barren stalks. The ears are very even in size, being but little smaller at the tip than at the butt, and corn is well filled out over the tip.

Reid's Yellow Dent. This variety has won more prizes at corn shows than any other corn. It matures a ten-inch ear of eighteen to twenty-four rows in one hundred fifteen days.

Improved Leaming. The Improved Leaming Corn is a medium early yellow variety; large, slightly tapering ears, deep grain, and medium sized red cob. In favorable years there is much uniformity of both kernels and ears. Its numerous broad leaves not only encourage a healthy development but make it a valuable variety for feeding.

Champion White Pearl. Originated in Illinois, and is enormously productive; a strong grower; matures in about 100 days. The stalk is stout and thick, with large ears set low.

King Philip Flint. A red grained flint variety, ripens in 80 to 85 days.

Longfellow Flint. This is an eight-rowed Yellow Flint variety, the result of careful selection. The ears are from ten to fifteen inches long, one and one-half to one and three-fourths inches in diameter, are well filled out to the extreme end of cob.

Canada Eight-Rowed Flint. This standard Flint corn is the earliest of all. It is a safe corn to plant where the season is short. It will mature in eighty-five days of good corn weather.

ENSILAGE CORN

Large or Southern Horse Tooth. A very leafy and robust growing corn that succeeds over a wide area.

Red Cob Ensilage. A corn of fair height, slender, short jointed, leafy, sweet, juicy, that is now in great demand in the North.

Evergreen Sweet Fodder. Superior for summer and fall green feeding.

POP CORN FOR SEED

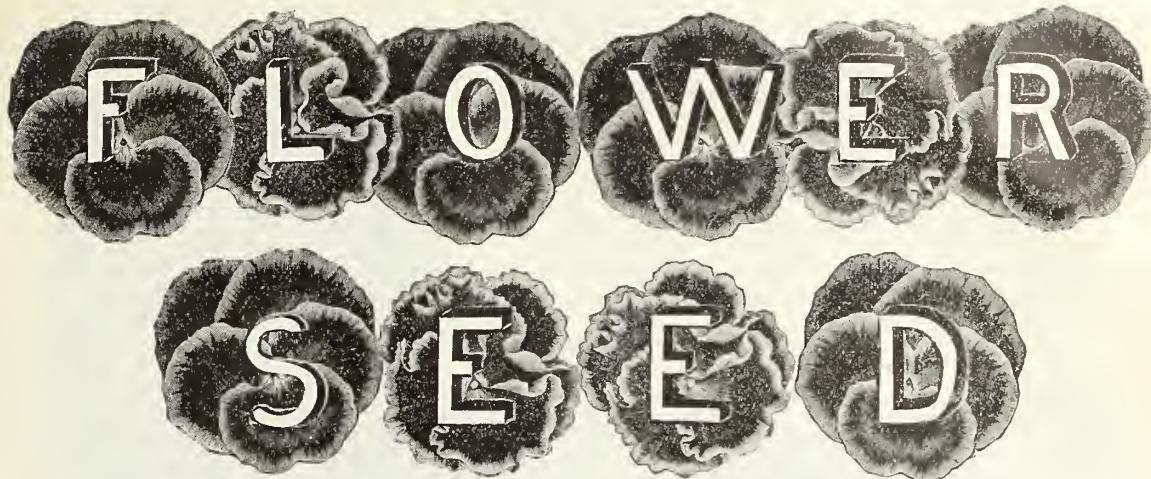
The corn listed here is carefully grown for seed purposes and must not be confused with the pop corn which we offer for other than seed purposes. With the increased demand for pop corn brought about by the use of sanitary corn popping machinery, it is well to give this crop consideration. It brings a price above other corn, and matures quickly and, though it lacks in height, it may be planted closely and the fodder is equal to any.

White Rice. The most popular of the varieties with the pop corn men.

White Pearl. A very handsome, smooth grained variety.

Golden Queen. A fine yellow grained sort.

Pop Corn for Popping. This corn we run through our drier to put it in perfect shape for commercial purposes and must not be confused with what we offer above for seed purposes.



In our lists are flowers and plants for many purposes and uses. Flowers are as necessary as are pictures, and to their beauty is often added such stimulating and pleasing perfumes as can not be bought in bottles. Some vines or tall plants may be grown to hide or make more sightly some fence or pile of stone, or stump or building. Some plants can be grown in a partial shade where grass does not grow, and others are serviceable in hanging baskets, vases or veranda boxes. Some plants used for cuttings bring the sunshine to those that must live indoors, while others are useful for cemetery lots, a tribute to those that precede us. Borders, beds and masses of flowers may appeal to us most as "the bouquets that live."

Most flowers are as easy to grow as vegetables. The same practices that promote the growth of grains and vegetables and fruit apply to flowers. The same fertilizer it is well to use generously. Practically all flowers stand transplanting. Window boxes or hot-beds are good places in which to cradle the baby plants. The stored energy of seed is often somewhat in proportion to the seeds' thickness, not its size. Cover the seed four times its least diameter. Drained, moist, warm, mellow soil should be the flowers' home; not soil that is wet or soil that bakes. True, there are plants that are difficult to grow, but these plants are few and respond to what we know to be ideal conditions for plants.

Flowers fall readily into three classes:

Annuals bloom, mature, seed and die the first year.

Biennials bloom and die in their second year; some of them give us bloom in the first year.

Perennials flower for several years and some of them may bloom in the first year of their existence.

ACROCLINIUM

Mixed. Beautiful everlasting flowers. Cut when they begin to expand.

ADONIS

Hardy plants with delicate foliage, flowering freely and of easy cultivation.

Adonis Vernalis. A charming hardy variety with large yellow flowers, blooming early in spring.

AGERATUM

Choicer Mixed. Suitable for pot culture or bedding, bearing in profusion clusters of feathery flowers. This mixture of colors contains the beautiful amethyst blue.

ALYSSUM

Free flowering plants for beds, edging, etc. Useful for bouquets because of their delicate fragrance.

Alyssum Sweet, Little Gem. Dwarf and compact, with plants a mass of white from spring until frost.

Alyssum, Sweet. White.

Alyssum Saxatile. (Hardy Alyssum.) Beautiful spring-blooming variety, with flowers of a deep pure yellow.

AMARANTHUS

Ornamental foliage plants. They are most brilliant on poor soil.

Amaranthus Tricolor Splendens. Very brilliant.

Amaranthus Salicifolius. The leaves change in color from a bronzy green to a brilliant scarlet as the plant attains age.

AURICULA

Tender perennials. Also called French Cowslips. An old garden favorite.

Alpine. Most hardy.



ALYSSUM—LITTLE GEM

ASPARAGUS

Sprengeri. Drooping variety, invaluable for suspended baskets or table decoration. The fronds frequently measuring 3 to 4 feet in length.

ASTERS

Daybreak. Large, very double flowers of a beautiful shell pink color. 2½ feet.

Purity. Large, very double flowers. Pure white. 2½ feet.

Queen of the Market. Prized for its earliness, large flowers and free blooming. Is of branching habit.

General Jaequeminot. Color very rich crimson, flowers large, very double.

Snowball, or Princess. When a white aster is desired this is very popular, being of good size and a profuse bloomer.

Aster, Christmas Tree. On account of its branching habit, this Aster is the most striking among the many varieties. The branches are horizontal; the plants attain a height of 20 inches and measure 24 to 28 inches in diameter at the base. Early and very profuse flowering. This effective aster is beautiful as a single plant, in beds or for pot culture.

Dwarf, Finest Mixed. The dwarf varieties are becoming more popular, as the flowers are nearly as large as the tall growing varieties and equally as good form. 1 foot.

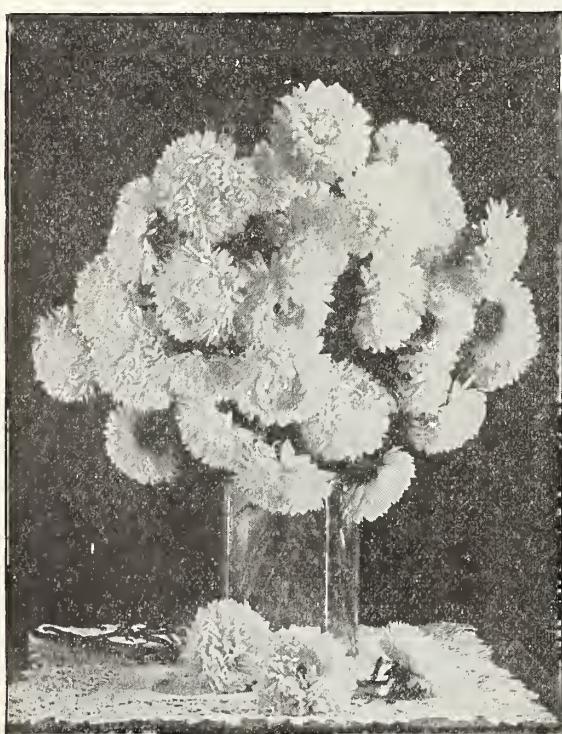
Perfection Mixture. In this we have endeavored to make as perfect a selection for variety as possible, including all the finest varieties of the large flowering asters. The colors include every shade known to asters.

GIANT COMET, Snow White. Grand; pure white, flowers of immense size and wonderful perfection.

GIANT COMET, Mixed Colors. A superb mixture which includes all the best colors and shades in this class.

Peony Flowered Perfection. Excellent for exhibition and very popular for both florists and private use. The best type of all incurved Asters; usually measures 4 inches across.

Aster, Chinese Single. These are exceedingly showy and excellent in cutting for vase decorations. The large, brilliant, daisy-like flowers with yellow centers are produced in profusion. Hardy perennial.



ASTER VICTORIA



GIANT COMET ASTER

Hohenzollern. One of the newest varieties, of branching habit, with enormous flowers on long stems. The waxy petals are long, curled, of graceful form; excellent for cutting.

Semples Giant Finest Mixed Colors.
All shades and colors.

Semples Giant Lavender.

Semples Giant Royal Purple.

Semples Giant Pure White.

Semples Giant Crimson.

Semples Giant Shell Pink.

VICTORIA ASTERS

Of all the large flowered asters none surpass this truly magnificent class. The plants themselves are strong growers, and produce profusely the most beautiful imbricated flowers. The stems being long and strong, none are finer for cut flowers.

Victoria Asters, Mixed Colors—Very fine. Separate Colors—Crimson, Carmine Rose, Dark Blue, Light Blue, Pure White.

Dwarf Victoria Asters. Perfect flowers of large size, produced profusely. 10 inches high. Effective in beds and borders. Choice mixed.

ANTIRRHINUM (SNAP DRAGON)

Are extensively grown under glass for cutting during the winter. The pure white and yellow varieties are mostly used.

Tall Finest Mixed.

Dwarf Finest Mixed.

AQUILEGIA

(COLUMBINE)

One of the most popular perennials, easiest of cultivation. Blooms profusely from May to August; very desirable for herbaceous borders and groups among shrubs. Moist soil preferable. Hardy perennial.

Finest Mixed.

ARISTOLOCHIA.

(Dutchman's Pipe.) A beautiful hardy climber. Leaves large and luxuriant; flowers brownish yellow, in shape resembling a pipe.

BALLOON VINE.

Ornamental climbing plant, remarkable for an inflated membranous capsule from which it derives its name.

BRACHYCOME.

(Swan River Daisy.) Produce an abundance of daisy-like flowers, about 1 foot high. Fine for edgings, beds or rustic baskets.

BALSAMS

(LADY SLIPPERS)

Beautiful half-hardy annuals, from 1½ to 2 feet in height. Sow the seed early in frames and transplant to a well enriched border.

Improved Camellia-flowered. Finest mixed. Flowers very large and extra double.

Improved Camellia-flowered White Perfection. Pure white, with large, very finely formed double flowers. The plant with its stems thickly crowded with snow-white blossoms, produces a magnificent effect.

Dwarf Spotted, Finest Mixed.

Double, Very Fine. Mixed.

CENTAUREA

Bachelor's Button or *Centaurea Cyanis*. A showy, hardy annual succeeding well in any soil, and bearing a profusion of flowers in shades of pink, blue and purple.

Centaurea Margareta. Large, fragrant flowers; produced on long stiff stems. They are fine for cutting and decoration.

Centaurea, New Giant Imperial. The best yet introduced. Grows 4 feet high, of enormous dimensions, covered with large, very fragrant flowers of an infinite variety of color.

CARNATION

Margaret Mixed. These carnations have created a universal sensation, not only on account of their beautiful colors, but, unlike all others, they bloom in about four months from sowing the seed. Bloom until checked by frost.

Choice Double Mixed. Producing many double flowers of all shades and colors.

CANDYTUFT

Showy, hardy annuals, very useful for edgings and masses, excellent for cutting; continuous bloom from July to October.

Finest Mixed. 1 foot.

CANTERBURY BELLS

Very ornamental, growing about 2 feet high, producing beautiful, large, bell-shaped flowers, which make a glorious display when planted in large beds.

Canterbury Bells. Single, blue and white mixed.

Canterbury Bells. Double mixed.



MARGARET CARNATION

COLEUS.

Fine Varieties. Mixed. Gorgeous colored plants with variegated foliage.

CINERARIA.

Beautiful free flowering plants for greenhouse and window garden. Finest mixed varieties.

CLARKIA.

Single Mixed. Pretty hardy annual, about 18 inches high, blooming from June to September.

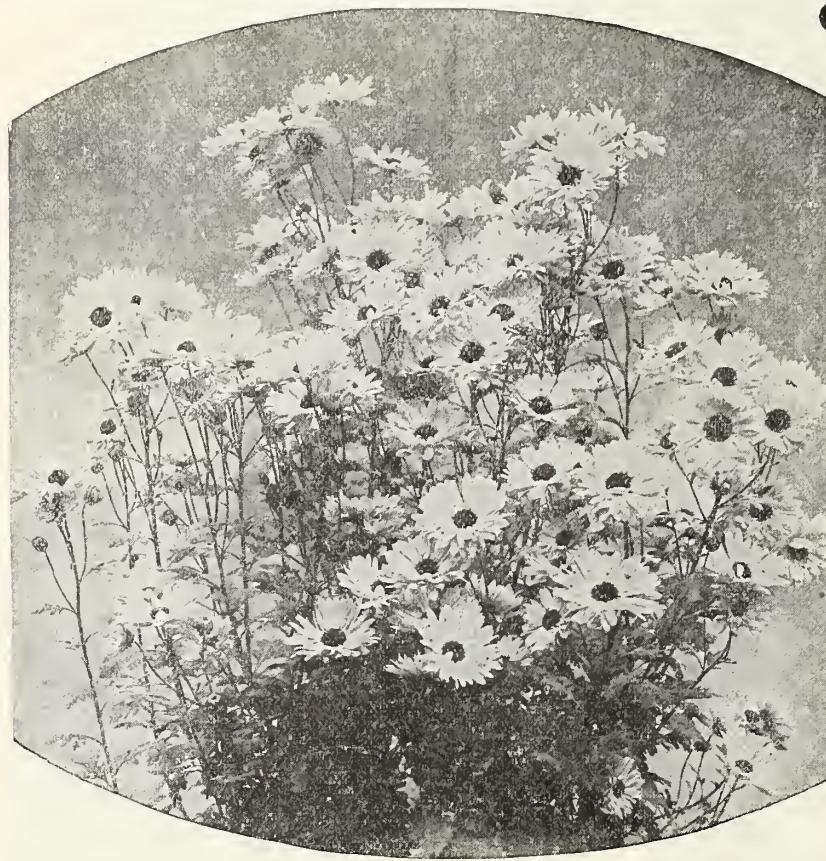
CHRYSANTHEMUMS

Handsome hardy annuals producing quantities of large flowers of striking colors, making a brilliant display.

Single or "Painted Daisy" Varieties Mixed.

Single or Double Yellow. Flowers very double, globe-shaped, extremely double.

Single or Double Fringed. Mixed. Flowers very double, with exquisitely fringed petals, in great diversity of colors, from white and yellow to blood-red purple.



CALLIOPSIS OR COREOPSIS

Coreopsis. Mixed Varieties. Yellow and brown and velvety brown.

Coreopsis Lanceolata. The perpetual Golden Coreopsis. Very free blooming and lasting in its golden glory throughout the summer and fall. Unequaled for cutting.

COSMOS

A very effective autumn flowering plant, with beautiful foliage, growing from 6 to 8 feet high, literally covered with very large, single daisy-like flowers, in shades of rose, purple and white. For cutting, this is one of the finest flowers grown. Sow in April in pots or in the hot bed, and transplant one foot apart.

Cosmos. The Bride. Pure White. The White Cosmos is the most fragrant.

Cosmos, Mammoth, New Fancy Varieties. In this splendid mixture are monster pink and white flowers, beautiful crimson shade, delicate white and mauve, daintily tinted and clouded with pink and mauve. Some large, white blossoms have broad plaited petals and pinked edges.

Early Cosmos. Mixed. Extra early, blooming in July.

CYPRESS VINE

Most beautiful and popular tender climber with very delicate, fern-like foliage and numerous flowers.

Cypress Vine. Scarlet. Very brilliant.

Cypress Vine. White.

COCKSCOMB

Dwarf Fiery Scarlet. A miniature plant, with enormous combs of intense fiery red.

Dwarf White. Dwarf Crimson.

Mixed. Extra large combs.

Japan Crimson. Huge combs, much cut and be-beruffled.

Glasgow Prize. Dark leaves and crimson combs; 1 foot.

Dwarf Yellow.

CALLIOPSIS

OR

COREOPSIS

One of the most showy of all annuals, the colors being so striking as seldom to be passed without a remark.

Coreopsis. Drummond's. Yellow flowers, crimson center.

Coreopsis. Golden Wave. Very bushy and compact. A mass of bright, golden color from July to October. Flowers two inches across, with small dark centers.

SHASTA DAISY

This is one of the creations of Mr. Luther Burbank. It is perfectly hardy, grows anywhere and blooms more abundantly each season. The flowers are very large, a foot or more in circumference, growing on long stems, with two rows of broad, pure white petals and a yellow center.

DOUBLE DAISY

(*Bellis Perennis*)

Charming plants for edging and dwarf beds, blooming the first year from seed. Thrive well in shady places.

Daisy, Snowball. Large flowered, pure white, and extremely double, with very long stems, making them valuable for cutting.

Daisy, "Longfellow." Flowers of unusual size, a dark rose color.

Daisy, Double Mixed.

DAHLIA

Sow the seeds early in pots or under glass, and transplant to strong, deep, rich soil, and plants will bloom the first season.

Dahlia. Single Varieties. Splendid mixture. Handsome bedding plants, and extensively used for cutting.

Dahlia. Single. Perfection or Giant. A splendid strain. The seed being gathered from the broadest petaled flowers only, reproduces them in variety of the most splendid colors, among which are many striped sorts.

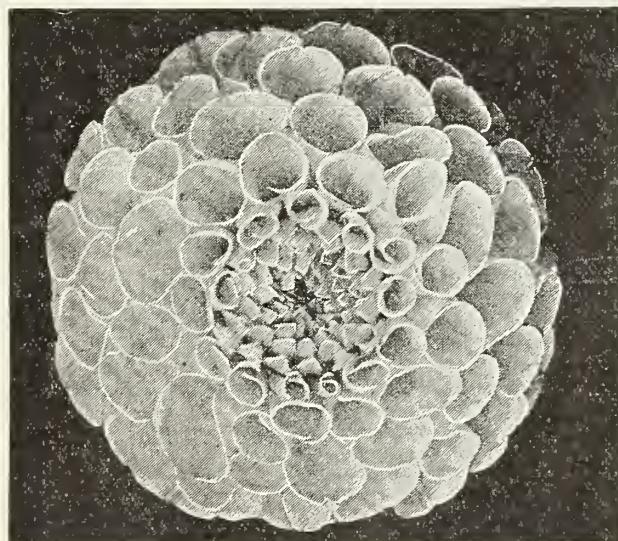
Dahlia. Double Mixed. Seeds saved from fine named sorts.

Dahlia, Juarezii. (Caetus Dahlia.) Splendid varieties mixed.

Dahlia, Double Gloria. Perfectly new race in a great diversity of forms. One plant produces its flowers as a double Scabiosa, another as a double Gaillardis, a third as a peony-flowered Aster, the next as a perennial Pyrethrum, another as a double Zinnia, and still another as a rosy red Giant Daisy. Their colors are as rich and varied as in all other classes.



SHASTA DAISY



DAHLIA

DATURA

(Trumpet Flower)

Showy plants, producing very large, sweet scented, trumpet-shaped flowers. Roots should be removed to cellar in autumn.

Datura. Wright's. White, bordered with lilac.

Datura. Golden Queen. Beautiful, double, yellow flowers, fragrant. If seed is sown indoors in March, plants will bloom in July. From that time on they will be covered with their large and showy flowers.

Save Some Room
in the Garden
for Flowers

DELPHINIUM

(*Perennial Larkspur*)

Flowers remarkable for their great beauty, diversity of shades, and striking appearance. Desirable for mixed borders. If sown early will bloom first year from seed.

Delphinium Formosum. Our flowers were two inches in diameter by actual measurement, brilliant, azure blue in color. Spikes 8 to 10 inches in length.

Delphinium Elatum. (Bee Larkspur.) Blue, 2 foot.

Delphinium Hybridum. Fine mixed, splendid.

EUPHORBIA

Euphorbia Heterophylla. "Mexican Fire Plant." Large, bushy plants growing about 3 feet high. Sow early in pots or hotbed, and transplant to open ground in May.

Euphorbia Variegata. "Snow on the Mountains." Leaves edged with pure white.

ESCHSCHOLTZIA

(*California Poppy*)

A very snowy plant, about 1 foot high, blooming from June until September. Produces a brilliant effect at a distance when grown in a mass. Hardy.

Eschscholtzia. Finest mixed.

Eschscholtzia. Double Mandarin. Large double flowers.

FEVERFEW

(*Matricaria*)

A beautiful half hardy perennial, well adapted for beds.

Feverfew, Double Dwarf. Flowers large, creamy-colored and very double.

FOXGLOVE

Large Flowering. Spotted and mixed. Very ornamental amongst shrubbery, producing tall spikes of showy flowers of purple, rose, white and yellow.

FUCHSIA

Elegant flowering plants, of easy culture in pots for parlor decoration or in the garden. In the garden they require a slightly shaded situation. Soil should be rich.

Fuchsia. Finest varieties. Mixed.

GAILLARDIA

One of the most showy and brilliant of garden flowers, fine for bedding and cutting, producing large flowers of rich shades throughout the summer.

Gaillardia, Single Grandiflora. Splendid, mixed.

FORGET-ME-NOT

(*Myosotis*)

A very pretty, little hardy perennial, about 6 inches high. Will thrive best in a cool, moist situation, and is well adapted for bedding or rock-work.

Forget - Me - Not. Blue. The standard variety.

GERANIUM

Giant Flowering Hybrids. A strain of seed saved from fine new improved Hybrids. The colors are all shades of scarlet, crimson, rose, pink, salmon, cream, veined pink, blush, pure snowy white.

Geranium. Zonale Varieties. Saved from some of the finest collections; many choice and entirely new varieties may be expected.



GERANIUM ZONALE



HELIOTROPE

IPOMOEA.

Very beautiful and popular climbers.

ICE PLANT.

A singular-looking, tender annual, with thick fleshy leaves that have the appearance of being covered with crystals of ice.

LINUM (FLOWERING FLAX)*Linum Grandiflorum Coccineum.* One of the handsomest annuals ever introduced.**LARKSPUR.**

Very beautiful; hardy annuals, producing dense spikes of flowers, which are very decorative.

MARVEL OF PERU.

(Mirabilis.) The old and well-known Four o'Clock. Fine plants, flowers various colors, making a fine summer hedge, set 1 foot apart.

(Targetes.) MARIGOLD. Extremely showy, 1 to 2 feet high, well adapted to garden culture, blooming profusely through the season.

MIGNONETTE. A general favorite on account of its delightful fragrance. Blooms throughout the season. Sow from middle of April to middle of June.

MORNING GLORY

Climbing plants; unequaled for rapidity of growth and profusion of bloom, annuals attaining height of 30 to 50 feet.

Giant Imperial Japanese. The flowers of these morning glories are double the size of the ordinary morning glory.

Tall. (*Convolvulus Major.*) The well known tall annual climber.Dwarf. (*Convolvulus Minor.*) A fine bushy plant one foot high.

LOBELIA. Strikingly pretty, profuse blossoming plants.

LOVE-IN-A-MIST. (*Nigella.*) A curious plant about 1 foot high, with finely cut leaves and single flowers.

LUPINS. Mixed. Showy hardy plants from 2 to 3 feet high, producing spikes of attractive flowers.

GLOBE AMARANTH.Ten-
der

annuals about 2 feet high.

GODETIA.

Very attractive, hardy annuals.

GOARDSDouble Bottle.
Dipper.

Hen's Egg. For nest eggs.

Hercules' Club.

Sugar Trough. For holding liquids.

Towel Gourd, or Luffa.

Useful, Fancy and Ornamental.

HELIOTROPE.

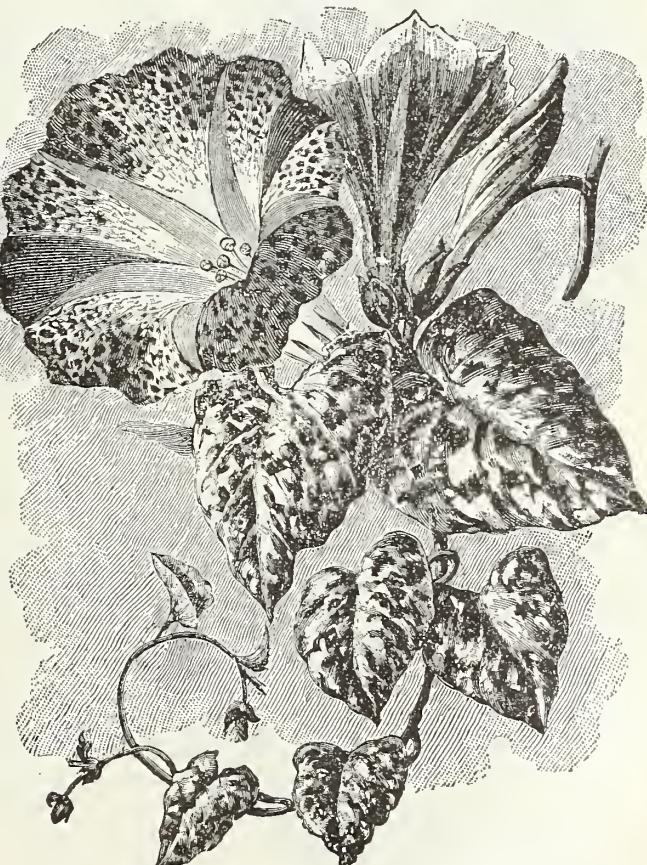
Well-known, deliciously fragrant plants, excellent for bedding purposes or pot culture.

HELICHRYSUM.

Ornamental in the garden and desirable for winter bouquets.

HOLLYHOCKS.

Seeds should be sown in June or July to have flowering plants the next summer; or, if sown in the house early in the spring they will bloom the first year.



GIANT IMPERIAL JAPANESE MORNING GLORIES



NASTURTIUM

There is no plant that in so short a time at so little expense will give such an abundance of bloom, continue that blooming over so long a period and give such variety and brilliancy of color as the Nasturtium. On a rich soil this plant gives us a more robust growth and fewer flowers, so the thinner soil is to be used if there is a choice. When the frost is no more to be feared, sow the seed one inch deep where the plant is to grow and remember to pick the seed balls as they form, to continue the plant's blooming. This sweet scented plant lasts long as a cut flower but is most frequently used as a tapestry to blanket some unsightly fence or pile of stone.

LEONARD'S OAK PARK BEDDING

The illustration is a photograph of a spray of flowers grown from this exquisite blend of bedding nasturtiums. It is well adapted for ribbon beds or borders, and is strikingly effective in masses.

DWARF OR TOM THUMB VARIETIES

King of Tom Thumbs. Crimson.

King Theodore. Deep chocolate crimson, dark foliage.

Lady Bird. Ground color is a rich golden yellow, each petal barred with ruby crimson.

NASTURTIUM—OAK PARK COLLECTION

Beauty. Golden orange, flamed scarlet.

Bronze Color. Of a burnished coppery bronze.

Cloth of Gold. Golden yellow foliage, flowers scarlet.

Crystal Palace Gem. Sulphur yellow, spotted maroon.

Golden King. Grand flowers three inches across; deep golden yellow, maroon blotches.

Empress of India. Brilliant crimson, dark foliage.

TALL OR CLIMBING NASTURTIUMS

Dark Crimson. Rich and velvety.

Edward Otto. Flowers brownish lilac with a yellow spur.

Hemisphaericum. Very showy, lemon yellow, with crimson blotches.

King Theodore. Velvety dark brown.

Nankeen. Yellow.

Leonard's Special Mixture of Tall Nasturtiums.

LOBB'S CLIMBING NASTURTIUMS

(*TROPEOLUM LOBBIANUM*)

They are as easily grown as the common Tall Nasturtium, which they far surpass.

Brilliant. Deep scarlet.

Crystal Palace. Very bright, orange, salmon, flowers.

Spitfire. Bright, fiery scarlet.

Choice Mixed.

PANSIES

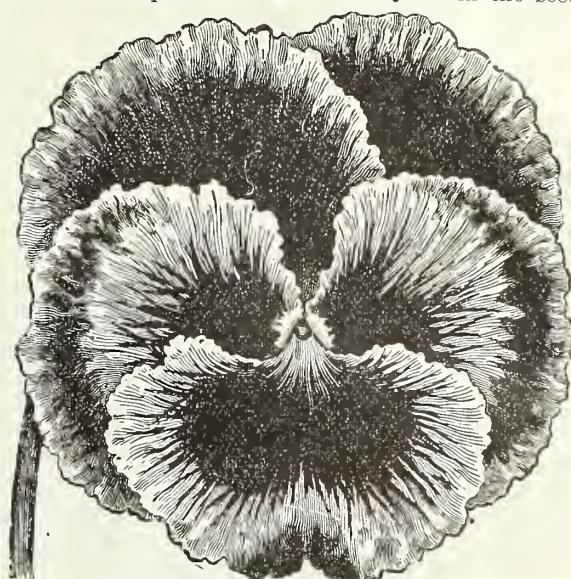
The dainty upturned face of the pansy makes an appeal to us all. It is one of the plants we can easily have in bloom at any time we wish. Expect the flower 80 days from the seedling. The seed sown out of doors early in the spring and transplanted furnishes bloom from late June till winter. This plant then mulched will furnish pansies early and till the next summer's heat. Seeds sown in July will yet bloom in the fall. Seeds sown in August and wintered or seeds started in hot-beds or window boxes will furnish the spring flowering pansy. The seed planted very shallow and kept continually moist, germinates in eight to fourteen days. Eight inches of space should be given each plant in a rich, moist, loamy soil. A northern exposure or a spot that is shaded at noon is best suited to the plant but, contrary to a prevailing opinion, very much shade is to be avoided.

Leonard's Special Strain of Giant Five-Spotted Pansy. Enormous size Pansies of rich, velvety texture.

Giant Red. Bright coppery shades.

Giant Uncle Tom. Finest black, deep jet; very velvety and large.

Giant Lord Beaconsfield. Flowers deep purple violet, shading to white at the upper petals.



LEONARD'S GIANT FIVE-SPOTTED PANSY

Masterpiece. This strain comes nearer to the Double Pansies than anything ever introduced under that name.

Aurora. Flowers large. Color pure white without blotches.

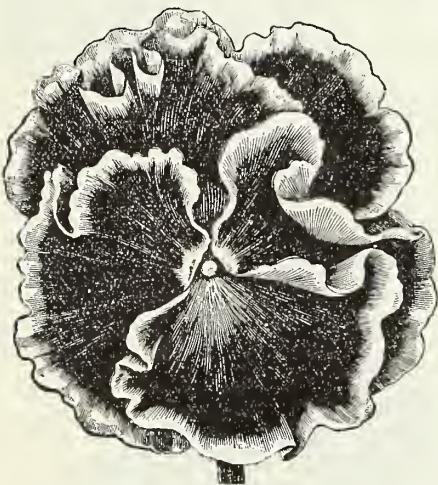
Giant Mahogany. A velvety, reddish-brown.

Mad. Perrett. Edge of petal is frilled. The colors are of dark wine, pink and red, beautifully veined and all with a white margin.

Cassier. This is a very fine mixture of pansies marked with three or five blotches on rich backgrounds.

Peacock. Very striking. Form and substance perfect. Upper petals beautiful ultramarine blue, resembling in shade the peacock feather. Lateral and lower petals are of a deep claret, margined white.

Bugnot's Large Stained Parisian. Mixed Colors. This splendid new class produces flowers of immense size and of the most varied and attractive markings and colors.



PANSY—Masterpiece

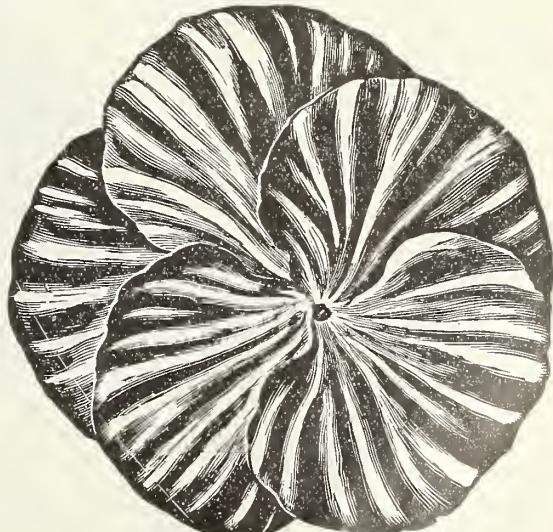
Giant Fancy Striped. An infinite variety of beautiful colors, curiously striped and flamed. Our stock is very select. The plants are vigorous and compact in growth. Immense flowers of fine form and texture, rich and velvety.

Trimardeau Giant. The blossoms are simply enormous, perfect in form and run through all the varieties of colors, from the lightest shade to the darkest purple. Marked with three large blotches.

Giant Odier. Handsome blossoms; being very large and perfect in form with dark, deep velvety blotches, margined with an endless variety of colors; extra large and fine.

Giant Emperor William. Large, handsome flowers, borne in great profusion well above foliage. Brilliant ultramarine blue, with a purple violet eye.

Fine Mixed. A very good strain in a great variety of colors.



GIANT FANCY STRIPED PANSY

NICOTIANA

A handsome genus of garden plants of the tobacco family, which are noted for the freedom and fragrance of their bloom. Half hardy annuals, 3 ft. high. Flowers white, salver shaped, having long, tubular corollas, and are of exquisite fragrance. Deserves a place in every garden.

Affinis.

Sanderac.

PASSIFLORA (PASSION FLOWERS)

Passiflora Coerulea. The most beautiful and remarkable variety grown, producing rich, green foliage and sky blue flowers, followed in the autumn by a profusion of golden fruit.

PERILLA. (*Nankinensis Atropurpurea Laciniata.*) Ornamental foliage plants similar to Coleus. Fine for bedding with silver-leaved plants. Foliage metallic bronze; same culture as for Coleus. Half hardy annual.



The flowers with their long pointed petals and broad white margins, having a beautiful, star-like appearance. Many and wonderfully brilliant colors.

HARDY PHLOX (*Phlox Decussata*)

These rank among the finest herbaceous plants for beds and borders. Magnificent, large, waxy flowers of lovely shades of color. Strong bushes, two or three feet high.

DWARF VARIETIES

Fireball. Very brilliant.

Snowball. Fine white.

Heynoldii. Mixed. Fine for pot culture.

Fimbriata. Petals toothed, beautifully fringed and margined with white. Mixed.

LARGE FLOWERING VARIETIES

Magnificent class. Flowers as large as those of the perennial phloxes.

White.

Deep Purple.

Large Flowering Mixed.

Yellow.

Bright Scarlet.

PORTULACA

Sow early, in warm, light soil, and thin plants to 4 inches.

Portulaca Single. Mixed.

Portulaca. Large flowered.

PETUNIA

For outdoor decoration or house culture, few plants are equal to this class. They commence to bloom early, and continue to flower through the summer. Give them a rich soil and a sunny place.

Double Mixed, Large Flowering. Flowers twice the size of the ordinary strain, and the most beautiful colors. Produce a larger per cent of double than most strains.

Single Large Flowering. Mixed, all colors.

Large Flowering, Fringed.

Petunia, Fine Mixed.

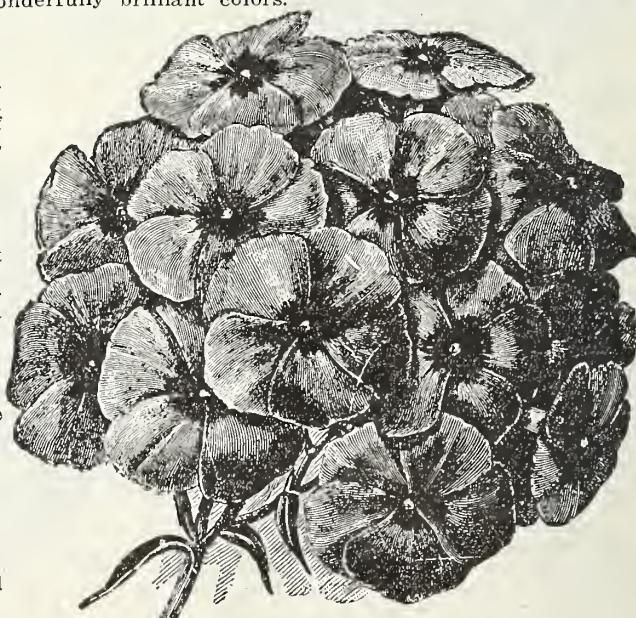
Petunia, Giants of California. Remarkably fine. Flowers very large, in every conceivable shade of crimson, white, violet, lavender, etc.

PHLOX

In its great variety of rich colors, probably the most brilliant of all annuals. Fine for bedding, making a dazzling show throughout the entire season.

Phlox Drummondii. Mixed Colors.

NEW STAR PHLOX (*CUSPIDATA*)





ANNUAL PINKS

These flowers are without a superior among annual garden plants. Bloom continually all summer long, and are most beautiful and lasting cut flowers. Of easy culture and bloom the first year from seed. Very fragrant.

Double Chinese Pinks. Flowers large and double. This beautiful variety does well anywhere.

Double Hedgewegii. Large flowers, beautiful rich colors, finely marked.

Double Diadem Pink. Of dwarf, compact habit, of various tints of rose, maroon and purple.

Double Japan Pinks. This is a strain superior to any we have previously had.

Double Imperial Pink. Mixed.

Eastern Queen. Beautifully marbled; the broad bands of rich mauve upon the paler surface of the petals are very striking and pretty.

Crimson Belle. Rich, vivid crimson-like color; flowers of extraordinary size and substance, evenly and finely laciniated.

Snow Queen Pink. This is an extra fine selection of the large flowering double White Japan Pink, the very best strain we have ever seen.

PRIMULA

Beautiful low-growing spring-flowering plants, for borders or pot culture.

Primula Sinensis. (Chinese Primrose.) Splendid mixed.

Primula Vulgaris. (English Primrose.) The old favorite yellow Primrose.

POPPIES

Showy, large, brilliant colored flowers, growing freely in any garden soil. Produce a fine effect in clumps or beds.

Finest Mixed. All colors and varieties.

Snow Drift. A grand variety. The large pure white flowers are perfectly round and double.

Shirley. The absence of black gives them their wonderful light, bright tissue-paper-like appearance. The colors range from purest white, through pinks of all shades, to glowing scarlet, but a scarlet without black.

The Mikado. Of pure white and brilliant crimson scarlet. Large double flowers of quaint, artistic beauty, with petals deeply cut and fringed.

Fairy Blush. The immense globular flowers are perfectly double, and measures from ten to thirteen inches in circumference. The petals are elegantly fringed and pure white, except at the tips, where they are distinctively colored with rosy cream.

Poppy Carnation Flowered. Very fine, double fringed flowers, all colors.

RICINUS. (Castor Oil Plant.) A highly ornamental, half-hardy annual, growing from 4 to 6 feet high, presenting quite a tropical appearance; select warm, dry soil and plant 6 feet apart.

ZANZIBARIENSIS. (Zanzibar Castor Bean.) Very showy, with gigantic leaves which range from brilliant coppery-bronze to light and dark green; the ribs also are bright colors, making a beautiful contrast with the leaves.

RODANTHE

A beautiful and charming everlasting flower. The flowers when gathered as soon as opened are very desirable for winter bouquets, retaining their brilliancy for months.

Rodanthe Maculata. Single mixed.

SALPIGLOSSIS GRANDIFLORA

colors of deep blue, rose, violet, yellow, reddish bronze, purple, etc. In rich coloring they vie with Orchids in mixed colors.

SANVITALIA. Beautiful dwarf-growing plants densely covered with perfectly double golden flowers.

SCHIZANTHUS. (Poor Man's Orchid.) Dwarf, large-flowering plants, grow about 12 inches in height, literally covered with large beautiful orchid-like flowers.

SMILAX. No climbing plant surpasses this in beauty and grace of foliage. Extensively used for bouquet and floral decorations.

STOKESIA CYANEA. (Cornflower Aster.) A rare and beautiful hardy perennial.

SILENE. (Catchfly.) Hardy plants flowering in great profusion throughout the summer.

STOCKS. Half-hardy annuals, producing splendid spikes of very rich and beautiful flowers of delightful fragrance. For early flowering sow early in spring in pots or in hotbed, and transplant one foot apart. Bloom from June until November.

SWEET WILLIAM

Well-known, beautiful, hardy perennials, about 1 foot high, making a most splendid appearance in May and June.

Sweet William, Single.

Sweet William, Double.

SUMMER CYPRESS or Kochia Scoparia. Burning Bush. The plants are always of globe-like form, branching freely, the stems being covered with delicate light green foliage. Early in the fall the ends of the shoots are thickly set with small bright scarlet flowers, the bushy plants resembling balls of fire. Very showy when planted singly to show the round ball-like form.

SUNFLOWER

Double Chrysanthemum Flowered. A tall plant, growing seven feet high and blooming profusely all summer. Flowers are double, large, round, golden yellow, and resemble chrysanthemums.

Globosus Fistulosus. Produces very large, exceedingly double flowers of bright yellow color. Plants about five feet high.

Large Russian. A strong growing, single variety, about six feet high. The stalks are sometimes used for fuel.



A BORDER OF SALVIA

SALVIA

Very ornamental plants, 2 feet high, producing tall spikes of gay flowers. Sow early in hotbed, or in pots in the house, and transplant 2 feet apart. Half hardy.

Salvia Coccinea. Splendid scarlet.

Salvia Bonfire. Fine for bedding; grows about 2½ feet high, forming handsome globular bushes producing long spikes of brilliant, dazzling scarlet flowers.

Mixed. All colors.

Salvia Splendens.

Salvia Drooping Spikes.

Salvia Clara Bedman.

LEONARD'S SEEDS—SUCCESS



TREE OF HEAVEN, OR AILANTHUS

TREE OF HEAVEN OR AILANTHUS

This splendid ornamental tree is a native of China, where it is called the Tree of Heaven, from its great beauty. It is very hardy, and thrives in any soil, no matter how poor, and grows from 6 to 10 feet high from seed the first summer. The leaves, from 5 to 6 feet in length, give it a grand appearance. Nothing outside the tropics can rival it for lawn decoration. Large panicles of bloom, followed in season by great clusters of colored seed pods, make the tree a continual thing of beauty.

VERBENA

Mammoth Verbena. Obtained by selection of the largest and most striking flowers. Our strain is very fine. All colors mixed.

Mammoth White. Large, very fine.

Scarlet. Very brilliant.

Striped Varieties.

Blue Varieties.

Red Varieties.

Defiance. Very brilliant scarlet. Very fine bedding variety.

Fine Mixed. All colors.

VIOLET

(*VIOLA ODORATA*)

Well known early spring blooming, fragrant flowers.
Single Blue. Very sweet scented blue flowers.

WALLFLOWER

Well-known half hardy perennials, blooming early in the spring and much prized for the delicious fragrance of their flowers. Should be protected in winter.

Wallflower, Single, Mixed.

Wallflower, Double, Mixed.

MIXED FLOWER SEEDS FOR WILD GARDENS

A splendid mixture of beautiful, free-blooming, hardy flowers, which can be offered at a much less price than when sold in separate packages. Those who cannot give the constant care necessary for finely arranged flower beds, will find the "Wild Garden" a delightful substitute, with its constant and ever-varying bloom. Such a flower bed is a continual surprise and pleasure, as new varieties and the old garden favorites flower successively throughout the season. Thin out where plants are crowded and keep clear of weeds.

ZINNIA

(YOUTH AND OLD AGE)

Splendid hardy annuals; succeeding well in any soil, and making a brilliant show. The same flowers will retain their beauty for weeks and a profusion will be produced until frost.

Zinnia. Elegans Grandiflora. Extremely double, globe-shaped flowers, 5 inches in diameter, of striking and brilliant colors.

Zinnia. Mixed.

Zinnia. Tall. Finest varieties double mixed.

Zinnia. Dwarf. Finest varieties mixed.



ZINNIA GRANDIFLORA

SWEET PEAS

In few lines of endeavor has the advancement been so marked or so rapid as in the development of sweet peas. The public has shown its appreciation of this flower and its improvement by buying more heavily of this flower seed than any other. So abundant is the bloom from even a small expenditure for this seed that it is a flower within the reach of all. But humble as it is in price, no more beautiful flower could be found to grace a palace or a queenly corsage. If what you want is a robust growth to hide some ugliness, if what you ask is colors and artistic shades, or if the only possible appeal to you is dollars made from sales, plant sweet peas.

If possible, for sweet peas spade deeply a well drained soil in the fall and add any good compost, including some wood ashes or lime. As early as the ground can be worked in spring plant the peas in a trench five inches deep and cover with one inch of sand or fine soil. When the peas are well above the ground fill the trench and thin the peas to stand two to three inches apart in the row. When planted, or very soon afterward, set some four to five foot supports. Muleh with lawn trimmings, water thoroughly once a week and cut frequently to keep the plant flowering.



Eckford Mixed. A very choice mixture of the Grandiflora types.
Spencer Varieties Mixed.

Bush Varieties Mixed. Cupid or Dwarf Sweet Peas Mixed. Grow six inches high, giving a carpet of just such blooms as the tall varieties produce and resist more successfully the summer drought.

Christmas or Winter Flowering Mixed. Used for forcing in the greenhouse but in the outdoor garden it gives the earliest though a somewhat smaller flower than some other sweet peas.

Choice Mixed. A studied and carefully made good mixture of all the standard sorts, not a haphazard throwing together of whatever may be found. A statement we feel we should repeat for you is this, that for the price there are no sweet peas sold that compare with our choice mixed sweet peas.

SPENCER VARIETIES

Asta Ohn, lavender tinted with mauve.

Florence Morse Spencer, delicate pink.

George Herbert, rosy magenta, shading to carmine.

Helen Lewis, orange, shading to buff.

John Ingman, rosy magenta.

Le Marquis Spencer, violet, shading to navy blue.

Mont Blanc, pure white.

Mrs. Rootzahn, apricot, shading to pink.

Othello Spencer, deep maroon.

Primrose Spencer, true primrose.

White Spencer, pure white.

White Wonder.



CHRISTMAS OR WINTER FLOWERING

Christmas White, pure white.

Christmas Pink, pink and white.

Earliest of All, pink and white.

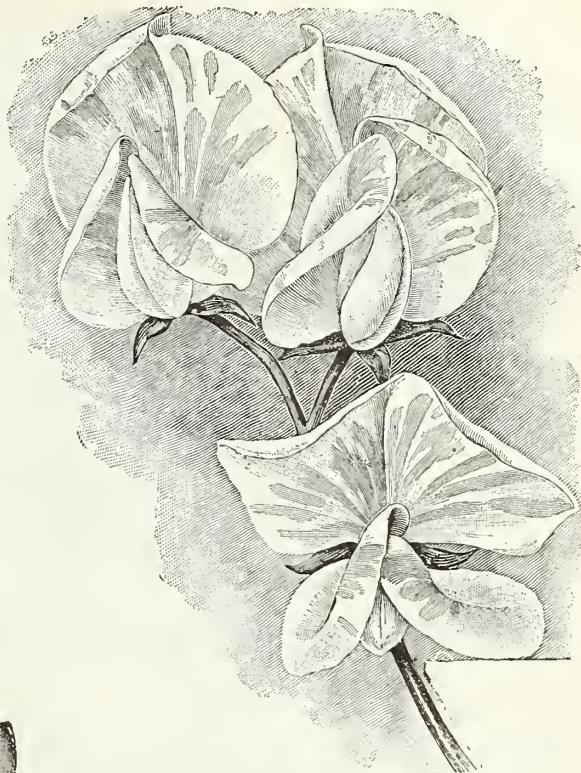
Earliest White, pure white.

WHITE SPENCER

SWEET PEAS

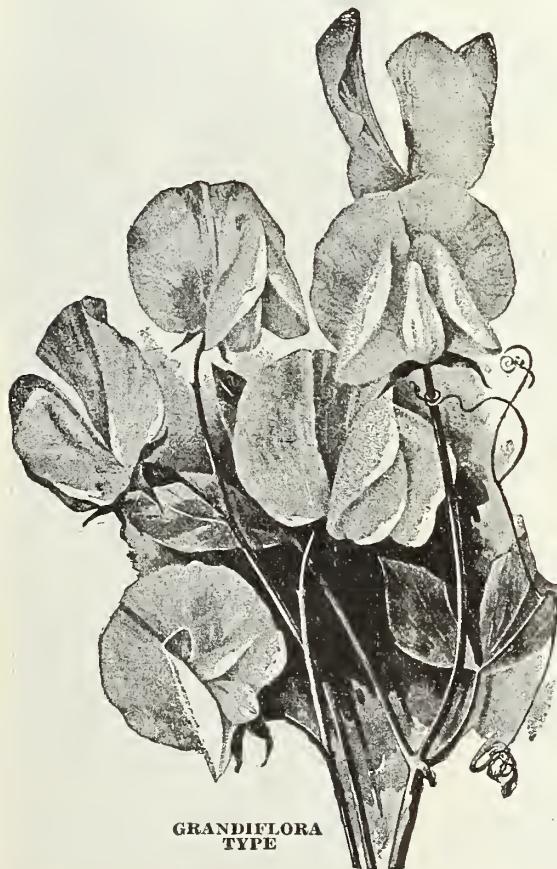
UNWIN AND GRANDI- FLORA TYPES

Admiration, rosy lavender.
 Agnes Eckford, light pink.
 America, blood red striped white.
 Aurora, orange rose, striped white.
 Blanche Ferry, pink and white.
 Black Knight, dark maroon.
 Captivation, rosy purple, large.
 California Sunbeams, cream color, fine.
 Coquette, primrose yellow, shaded lavender.
 Countess of Cadogan, reddish mauve, wings blue.
 Dorothy Tennant, rosy mauve.
 Dorothy Eckford, one of the best whites.
 Duke of Westminster, deep rose maroon.
 Earliest of All, pink and white.
 Earl Cromer, claret magenta.
 Emily Eckford, reddish mauve.
 Emily Henderson, pure white.
 Evelyn Byatt, fine orange salmon.
 Extra Early Blanche Ferry, pink and white.
 Gorgeous, bright orange salmon.
 Henry Eckford, of extraordinary orange color.
 Janet Scott, fine pink.
 Jeanie Gordon, bright rose, shaded cream.
 Katherine Tracy, fine soft pink.



SPENCER
TYPE

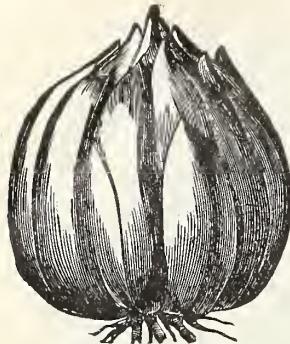
King Edward VII, bright scarlet, large flower.
 Lady Mary Currie, orange pink, shaded lilac.
 Lady Nina Balfour, delicate mauve.
 Lottie Eckford, white, suffused lavender.
 Lovely, soft shell pink.
 Maid of Honor, white edged lavender.
 Miss Willmot, richest orange pink.
 Mrs. Alex. Wallace, delicate lavender.
 Mrs. Collier, primrose, delicate shades.
 Mrs. Joseph Chamberlain, white, flaked rose.
 Mrs. E. Kenyon, primrose.
 Navy Blue, deep blue.
 New Comtess, delicate lavender.
 Othello, dark maroon.
 Prima Donna, pure pink.
 Prince of Wales, bright rose, self color.
 Queen Alexandra, bright scarlet red.
 Royal Rose, rosy pink.
 Sadie Burpee, large, pure white.
 Senator, chocolate, striped white.
 Shasta, pure white.
 Stella Morse, rich primrose, flushed pink.
 Sunbeams, delicate cream.
 Sybil Eckford, creamy buff.
 Triumph, standard rose, wings veined with scarlet.
 Venus, salmon buff.



GRANDIFLORA
TYPE

**TRY SOME SPENCER
SWEET PEAS
THEY ARE BEAUTIFUL**

SUMMER FLOWERING BULBS HARDY LILIES



LILY BULB

Lilium Auratum. The glorious gold banded Lily of Japan and one of the grandest plants in cultivation.

Lilium Longiflorum. The pure white flowers resemble the well known Bermuda Easter Lily and are very fragrant.

Lilium Speciosum Album. Pure white flowers, with a greenish band through the center of each petal.

Lilium Speciosum Rubrum. No words can overstate the brilliant beauty of these famous Japan Lilies.

Lilium Tigrinum, Flore Pleno. (Double Tiger Lily.) This magnificent lily is of stately habit, bearing clusters of very large double flowers on tall, strong stems; color, bright orange red, spotted with black.

Lilium Tigrinum, Splendens. (Improved Single Tiger Lily.) Has very large flowers of excellent form; color, orange salmon with dark spots.

CALADIUM ESCULENTUM

Known as Elephant's Ears. One of the finest tropical plants which can be grown in the open air in the north. It can be made to produce three to ten leaves, three to four feet long and nearly as wide, on stalks four to six feet high.

TUBEROSES

Tall, Double. Three to five feet high, strong and free blooming.

Pearl. Larger, better and more flowers produced by this sort than the old variety. Stems short; from two to three feet high.

Excelsior Pearl. An improvement on the ordinary pearl; produces very heavy spikes of large double flowers.

DAHLIA

The dahlia has always been a favorite for autumn flowering. The flowers are so symmetrical and perfect, and the range of colors so large and varied that they will always be popular where display is wanted.

LARGE FLOWERING CANNAS

Best Standard Sorts.

GLADIOULUS

These desirable bulbs should be planted in every garden. Claimed by many to be "the flower of all flowers." They contain every shade of color from the most brilliant and gorgeous to the softest and most delicate. The immense spikes of bloom develop in the greatest perfection; if cut when the first four flowers open, and placed in water, they will last ten days.

Mixed, Large Flowering Bulbs. This mixture is composed of every color—white, pink, yellow, rose, scarlet, crimson, dark maroon, etc., beautifully marked and variegated.

Red Mixed. All shades.

White and Light Colors.

Pink Shades.

Yellow Mixed.

MADEIRA VINE

Tuberous rooted climber with glossy green leaves and delightfully fragrant white blossoms. Sometimes called Mignonette Vine.

CINNAMON VINE

A very pretty vine to train around the window or on a trellis. In mid-summer the plant is covered with a brilliant, glossy foliage and an abundance of fragrant flowers. It is also an exceedingly quick grower.

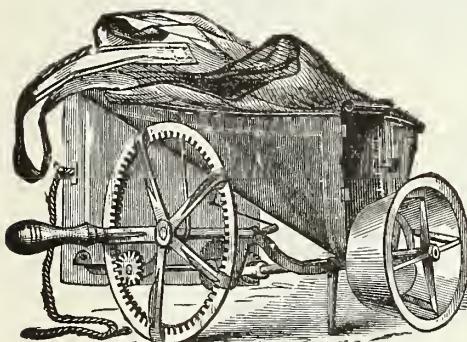
CALLA LILIES

Richardia Ethiopica is the well known Egyptian Lily, or Lily of the Nile, with large white flowers, broad foliage, and it will prosper under very adverse circumstances if given plenty of water.

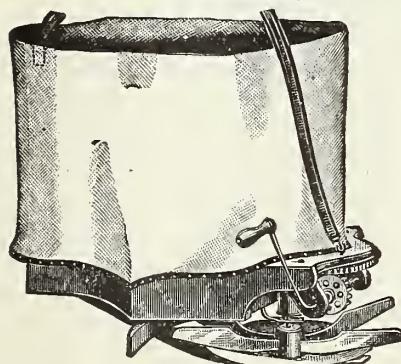




Potato Bug Problem Solved



CAHOON SEEDER



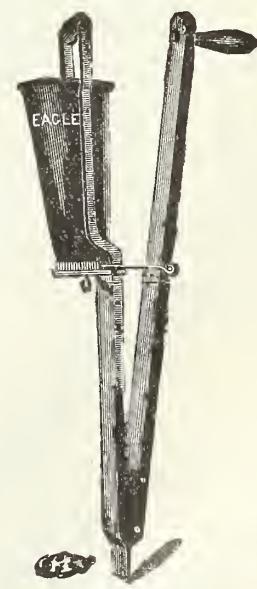
THE CYCLONE SEEDER

TOOL PRICES ON APPLICATION

The Cahoon. This well known broadcast seed sower is considered among the best. It is easily worked and sows timothy, clover, flax, wheat, oats, rye, barley, all kinds of grass, and may be used by the gardener for spinach seed or any other kind he may wish to sow broadcast.

The Cyclone. A seeder which is becoming very popular. It is a cheaper machine and a good one.

**Hand Corn Planters—
The Eagle.** This is a rotary planter having three different sized plates, which can be put in or taken out as needed, in the easiest manner. It is the most popular planter of all.



FOR MASTERS PLANT SETTER SEE PAGE 80.

PLANET JR. FARM AND GARDEN TOOLS

The few who do not like to garden, are either unacquainted with the beauty and utility of gardening or they have not used the proper tools to help them with the least effort to secure results.

Planet Jr. tools are used in practically all the great gardens because they are strong, accurate and fast. How fast? The Manufacturer says, "Capacity, 2 acres a day." In a case under our observation a farmer planted three acres of Soya beans in four hours and twenty-five minutes with a Planet Jr. hand drill.

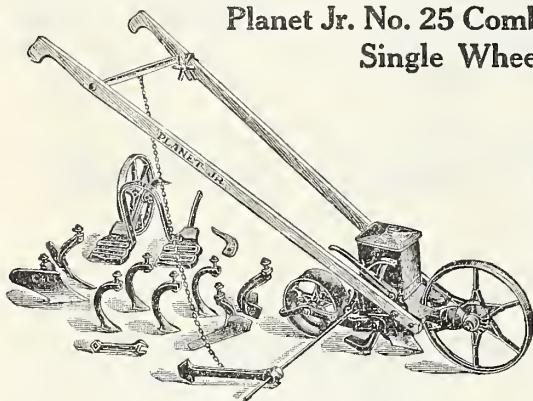
No. 5 Planet Jr. Hill and Drill Seeder

16½ inch steel wheel. Sheet steel hopper holding 5 quarts. Weight, packed, 51 pounds.

Special size for market gardeners and farmers, for sugar beet and onion set growers, etc. It is the great hand-power planter for both hills and drills, where the amount of sowing to be done is large. It runs light, and plants equally well with a full hopper or with an ounce of seed, and up hill or down.



Planet Jr. No. 25 Combined Hill and Drill Seeder, Double and Single Wheel Hoe, Cultivator and Plow

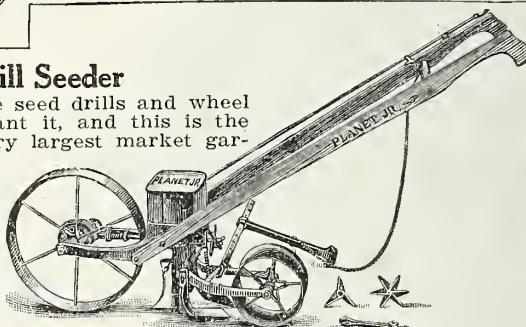


This new combined machine is intended for gardeners who have enough acreage for a double wheel hoe to be used and yet prefer not to buy seeders and wheel hoes separately; also for onion growers and for the large family garden where both a single and double wheel hoe can be used to advantage. The hopper holds four pounds of onion seed.

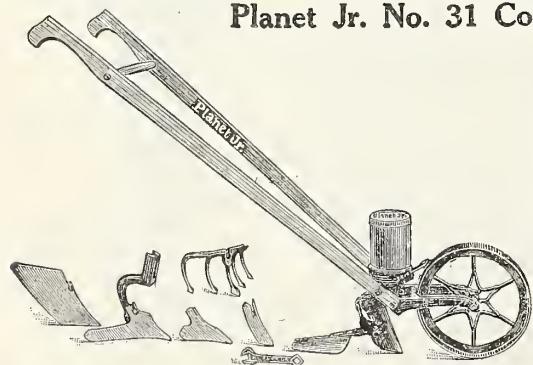
The change from Drill to Wheel Hoe takes but a moment, and the whole combination is one we can heartily recommend and guarantee satisfactorily.

Planet Jr. No. 3 Hill and Drill Seeder

We recommend customers to buy separate seed drills and wheel hoes where they have enough work to warrant it, and this is the size that should be bought, except by the very largest market gardeners and sugar beet growers, etc., to whom we recommend No. 5, which is similar but larger. It sows evenly in drills, and also drops in hills at 4, 6, 8, 12 or 24 inches apart. It is thrown out of gear instantly by moving a convenient lever, or the flow of seed is stopped by pushing down the feed rod. No time is lost, no seed is wasted. It is quickly set to sow the different kinds of seeds in the exact thickness required.



Planet Jr. No. 31 Combined Drill Seeder and Wheel Hoe



It is thoroughly well-made and offered at a price that makes it pay the smallest gardener. It will sow even a small packet of any garden seed any thickness desired with the greatest precision from $\frac{1}{4}$ to 2 inches deep, in a narrow row. The index is most simple, easily set for every kind of seed. The flow of seed is stopped simply by raising the handles, and the tool may be thrown in or out of gear in a moment. It holds one quart.

The seed drill attachment may be removed in a moment and be replaced as quickly by a tool standard to which are fitted all the various cultivating attachments.

PLANET JR. FARM AND GARDEN TOOLS—Continued

THE HOE IS TOO SLOW IN 1916

More and better work can be done in one day with a wheel cultivator than in three days with a hand hoe.

Planet Jr. catalogue, describing fifty-five tools, including seeders, wheel-hoes, harrows, orchard and beet cultivators, etc., free upon request.

Planet Jr. goods are standard articles fully guaranteed and one cannot afford to farm or garden without some of these best of tools. A few of these cultivators we list on this page.

Planet Jr. No. 17

Single Wheel Hoe, Cultivator and Plow

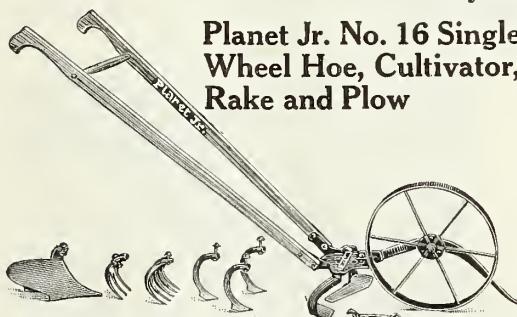
For easy gardening, and at the same time clean and perfect gardening, the kind that will make your garden the talk of the neighborhood and cause your face to glow with honest pride, nothing is quite the equal of this No. 17 Single Wheel Hoe. It is suited to all kinds of garden cultivation and all garden crops. The No. 17 has a pair of 6-inch hoes, a plow and a set of cultivator teeth, an outfit sufficient for most garden work. Other attachments can be added at any time and will be found to fit. No. 18 Single Wheel Hoe is the No. 17 with hoes only.



PLANET JR. NO. 18 SINGLE WHEEL HOE

No. 18 Single Wheel Hoe is the No. 17 with hoes only.

EQUIPMENT:



Planet Jr. No. 16 Single Wheel Hoe, Cultivator, Rake and Plow

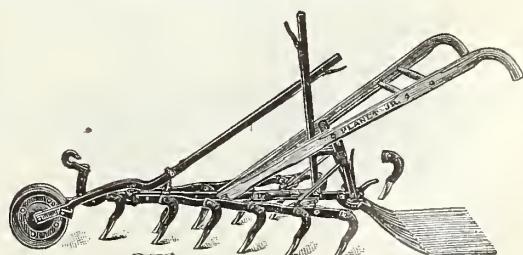
One pair of 6-inch hoes.
Three cultivator teeth.
One large garden plow.
All oil tempered.

One 7-inch rake.
One 4-inch rake.
One leaf guard.

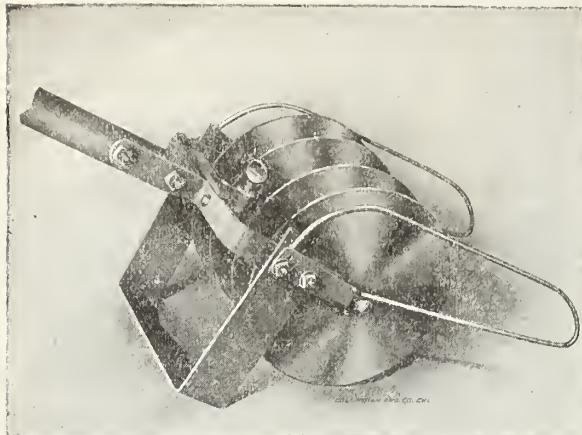
Single wheel hoes are lighter than the double and do almost the same variety of work, but are used mostly between the rows, yet by attaching the wheel to the other side of the arm, Planet Jr. Single Wheel Hoes can be used to hoe both sides at once while the plants are small—the most important time.

Planet Jr. Twelve-Tooth Harrow, Cultivator and Pulverizer

This tool expands to 32 inches and contracts to 12. The expander works with ease, yet holds the tool thoroughly rigid. The teeth and pulverizer leave the ground in the finest condition, and the operator can set the tool exactly to any depth desired, making delicate work not only possible, but easy. Improved braces enable one to change the handles in height to suit boy or man, and also sidewise.



CULTIVATORS AND WEEDERS



Notice the Thumb Screw that Adjusts the Discs

The stiff wire leaf guards keep the tops of the plants away from the discs.

This Perfection Garden Cultivator, a new disk and knife weeder, is an evolution in hand cultivators. It does the weed killing, cultivating, and mulching at one process, something no other cultivator accomplishes. It can be worked in gravel soil or in stony land, through sticks and coarse stubble, or in the softest loam. As a deeper mulch is required in dry weather than in moist weather, as a crop as it advances in age requires more shallow cultivation, as different crops and soils require different treatment, this tool is adapted to them all. Preferred by the successful professional gardener or the most exacting amateur home gardener, the tool is also so simple a child can work it. While built for the gardener who wants a tool stout enough for his most robust workman, it is so easy of operation as to meet with favor in the hands of the woman flower grower or the little housewife.

The inventor of this tool is a practical onion grower and trucker. During his thirty years in truck farming and onion growing he has tried out all of the garden cultivators that have been made and recommended during that time. He knows the good points as well as the defects of each. From this knowledge he has perfected, after repeated efforts, this new tool, which in a simple form, does all the work that can be done by the complicated attachments and combinations of the other tools.

One thumb screw is all that is operated in adjusting this tool. No attachments are necessary to make it do the work needed.

The tool is now in its third year. Onion growers and truckers find that it works closer to the plant than any other, and save them half on cultivation and hand weeding.

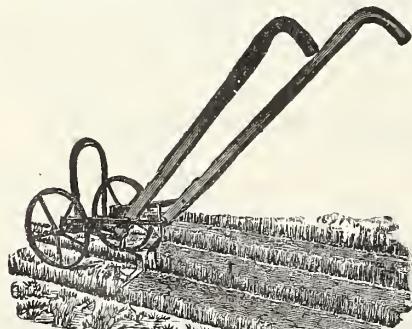
The photograph shows the tool complete. It is durable, made of the best material, and within the reach of all in price.



LANG'S WEEDEER

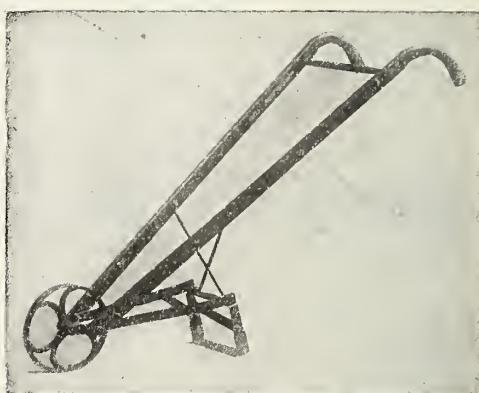
EXCELSIOR WEEDEER

The best hand weeder for all finger weed-ing purposes.



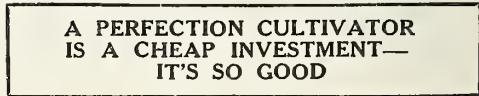
McGEE CULTIVATOR

The best cultivator of all for straddling the row.

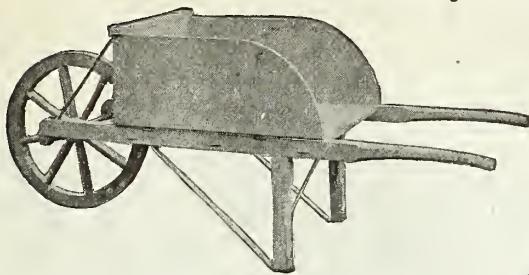


THE PHILLIP CULTIVATOR

A regular "old fashioned scrub." Made in Chicago. 6-inch and 9-inch size.



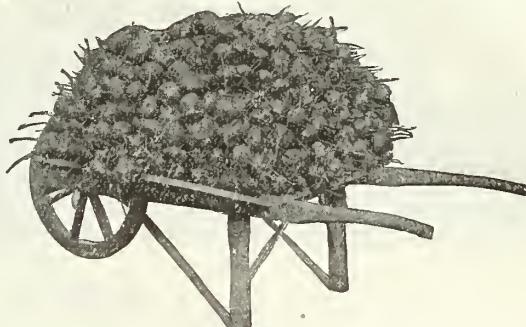
New Way Garden Barrow



This barrow is framed of the best grade of seasoned hard wood carefully put together, then primed, painted and varnished, high carbon steel axle. Box (when sides are up) is 26 $\frac{1}{2}$ inches long, 19 $\frac{1}{4}$ inches wide at front, 22 $\frac{1}{4}$ inches wide at rear, 11 $\frac{1}{4}$ inches deep, and has a 20 $\frac{1}{2}$ inch wheel. The handiest thing about the place for corn or any big crop.

Something Different

The sides detach as easily as those of the ordinary barrow but unlike the usual barrow do not fall out when the barrow is upset.



Just four times the capacity of the barrow when sides are in natural position.



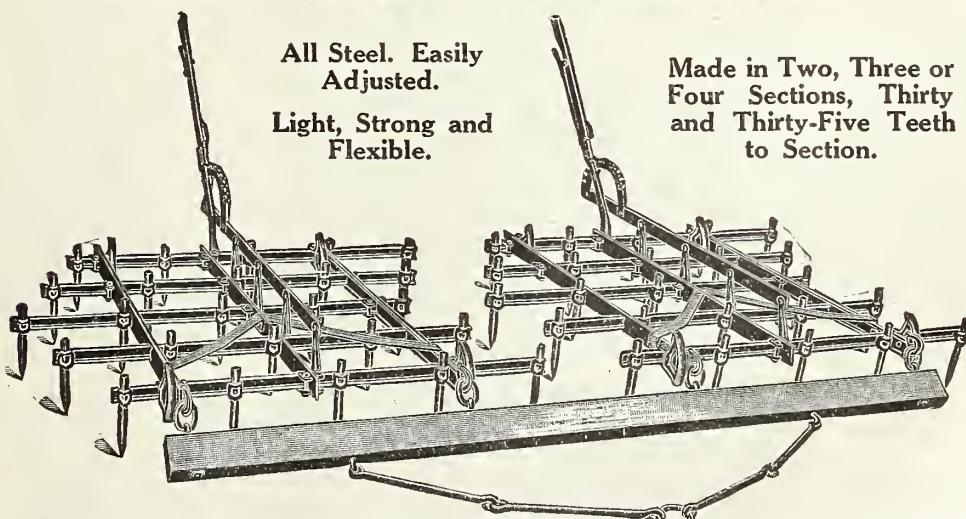
Steel Beam

U-Bar Steel Lever Harrow

All Steel. Easily Adjusted.

Light, Strong and Flexible.

Made in Two, Three or Four Sections, Thirty and Thirty-Five Teeth to Section.



The teeth are spaced and arranged on the bars so as to cover the ground thoroughly and not to track with each other. They can be pitched forward so as to penetrate and pulverize, or slanted backward for smoothing or clearing themselves quickly and at the will of the operator. There are no bars below the harrow to catch trash or clog the implement when in operation.



FERTILIZERS

There is an axiom that "what grows one year will decay the next." So among the economies practiced by the European and which must not be confused with that which is miserliness or stinginess is the use of a compost heap. This practice could well be copied here. Not only the individual American but our great cities throw away vast quantities of that which might be composted. The gardener had best select a spot removed from the residence and there save continually all weeds, grasses, leaves, poultry and stable manure, soot, hoof and horn parings, bones, unused vegetables and fruit and refuse from the table. Earth and phosphate can be added to this compost heap, and while the heap should be kept moist enough to decay, it should be protected by a roof from rain. Later this compost should be spread upon the soil and plowed or spaded in.

As man advances he asks more varied kinds of foods. Or should we say as man secures more varied kinds of food he advances? So for plants as for animals, they are best fed when given many kinds of food. This is one of the reasons why the compost heap is so valuable. It is very probable that our commercial fertilizer of the future will contain several elements we are making no effort to feed plants now. As we expect different foods from day to day for ourselves, now we are changing and rotating fertilizers. The plant's dinner must not be the same on each bill of fare. We must not surfeit or sicken our plants by one food, good as that food may be.

Experience has taught, with few exceptions, that the same crop is not to be grown year after year on the same soil. The crops are to be rotated. In the gardens and flower beds as in the field this should be true. If cabbage were on the east side last year, then put something besides cabbage, or something in no way related to cabbage there this year. To think about gardening is to come to the conclusion that it is wise to rotate crops and equally wise to rotate or change fertilizer.

As nature makes an attempt to keep all soils busy and all bare spots covered up, so, whenever possible, man should plant cover crops and plow or spade them under. Rye and vetch planted in the fall and in the spring spaded in is an excellent method of green manuring.

Fertilizer is a big word. Shade from trees or buildings is another lack of fertility. The poisonous fumes from factories kill plants, so plants do breathe. After all, much or most of our fertilizer is just sunlight or air. While most of the world's fertility does not reach us as freight, some very good fertilizers that it is wise to use do come done up in bags.

Think of the organisms or bacteria that live in the soil as laborers living and working in their home, and that they need material with which to work. These tiny workmen, we say, make the plant food available. So not only are workmen necessary, but we must supply them with the raw material with which to work. Some of the things we may add to the garden may contain with new workmen, call them micro-organisms if you wish, one or several raw materials as well. Other materials we supply to our gardens may contain only these elements or materials which we class as phosphates, potash and nitrogen. We say a fertilizer is complete when it contains these last three named elements. The word fertilizer suggests one or more of these three elements put up in bags and known as commercial fertilizer. If the manufacturers of commercial fertilizer have had a weakness it has been in their lack of effort to teach that their product is not an antidote for the poison of poor farming or gardening. No one who can see and think can doubt its profitable and necessary use. Such a use must go hand in hand with other good practices, like soil draining, subsoiling, liming, deep plowing, stable and green manuring, the rotation of crops, the rotation of fertilizers, thorough cultivation and the use of good seed.

Pulverized Sheep Manure. Humanity builds the results of its learning into little sayings; one of them is, "The sheep's foot is gold." Generations of farmers learned that where the sheep were kept or pastured later grew rich crops. So we are offering sheep manure that has been pulverized, screened and dried till it contains no weed seed and is in the most perfect condition for handling. Where the ant was found to follow the application of bone meal to lawns, the application of this Pulverized Sheep Manure was followed only by good results. Its effect is not only immediate but lasting. For a potting soil one part of this manure to six parts of the soil was found to be preferred. For the making of a liquid manure one pound to six gallons of water was superior. It does not offend by its appearance. When heavily and freshly applied to lawns it is barely discernible. A heavy application is not to be feared but to be advised for house plants, lawns, flower gardens, fruit or vegetables. Prices in front of catalogue.

FERTILIZERS

It is unnecessary to tell our customers that Chicago is recognized as headquarters for commercial fertilizer. Here is to be had material for the manufacturing of fertilizer in large quantities and of highest grade. We have made special arrangements with the factory by which we are able to offer this article at the lowest wholesale price, and solicit correspondence from parties wishing large quantities. We can save you money if you buy by the sack, ton or carload. Fertilizer prices vary. PURCHASER PAYS THE FREIGHT. Prices subject to market changes.

FARMERS' FAVORITE BRAND. Guaranteed Analysis.

	Per cent
Ammonia (Nitrogen 2.47).....	3
Available Phosphoric Acid (Animal).....	8
Potash (K_2O).....	1

This is a high grade all around fertilizer, especially adapted to all field crops and is better for market gardeners' use than nine-tenths of the "Onion Growers," "Potato Growers," etc., on the market. It is the best of brands on the market for fruit trees, vines and small fruit.

BIG HARVEST Guaranteed Analysis.

	Per cent
Ammonia (Nitrogen 1.65).....	2
Available Phosphoric Acid.....	12
Insoluble Phosphoric Acid (Animal).....	2
Potash (K_2O).....	1

This brand is especially for soils or crops that require a large amount of Phosphoric Acid. It contains enough Ammonia to give the plant a good start, also some of Potash. We consider this one of the best fertilizers we manufacture for grain crops.

Nitrate of Soda. Valuable solely for the nitrate it contains. It is chiefly a stimulant used in addition to other fertilizers. It is quick in action and hastens crops to maturity, being extremely soluble; it is easily applied after the plants are above the ground. As a liquid, use one pound in fifteen gallons of water.

PURE GROUND BONE. Guaranteed Analysis.

	Per cent
Ammonia (Nitrogen 1.85).....	2.25
Total Phosphoric Acid.....	28.

This is a soft steamed bone and the staple article for Fall seeding. It is wholly animal matter, is slower of action than complete goods, so is especially adapted for use on wheat, meadows, or any crop that remains in growth a year or more.

Blood and Bone. Manufactured of pure blood and bone. When this fertilizer is used in rows or in hills for such crops as celery, cabbage or early corn from 100 to 200 pounds per acre will be enough.

Hard Wood Ashes improves the texture of the soil and drives away insects and indispensable for all crops requiring potash. Very beneficial for garden and field crops, grass lands and lawns. Total potash, 6 per cent.

HIGH GRADE ACID PHOSPHATE. Guaranteed Analysis.

Available Phosphoric Acid, 14 to 16 per cent. This brand was put on the market to supply the demand for a cheap fertilizer, running high in available Phosphoric Acid only.

We know from past experience, that crops need Nitrogen and Potash, as well as Phosphoric Acid, and farmers who have been induced to use fertilizer containing nothing but Phosphoric Acid invariably find that high grade goods are more economical, because better results are obtained.

A PAGE ON FUNGICIDES AND INSECTICIDES

The attempt to summarize the militant ways of man in his battle with disease, fungi, and insects that attack our plant world would be, because of its brevity, somewhat imperfect. This quickly developed science that is rapidly progressing fills volumes of space. In the effort to be brief, which means we cannot be concise, we might say of the plants' enemies that they are: first, fungous diseases; second, insects that eat or chew the plant; third, insects that suck the plants' juices; fourth, insects that bore into the plant.

FIRST. The Fungous Diseases of plants may be thought of as blight, mildew, spot, speck, dry rot, black rot, rust, scab or mold, etc.

The remedies applied are called Fungicides. They may be preventative or cures, or both. Some of them are as follows:

Bordeaux Mixture.

Copper Sulphate.....	6 pounds
Quicklime	4 pounds
Water	40 gallons

Dissolve the copper sulphate by putting it in a bag of coarse cloth and hanging this in a vessel holding at least 4 gallons, so that it is just covered by the water. Use an earthen or wooden vessel. Slake the lime in an equal amount of water. Then mix the two and add enough water to make 40 gallons. It is then ready for immediate use.

Ammoniaca Copper Carbonate.

Copper Carbonate.....	1 ounce
Ammonia.....	enough to dissolve the copper
Water	9 gallons

SECOND. Insects that chew or eat the plant may be bugs, caterpillars, worms or slugs. The poisons we feed to this class of our enemies we call **Stomach Poisons** and some of them are:

Paris Green.

Paris Green.....	1 pound
Water	250 gallons

If this mixture is to be used upon peach trees, 1 pound quicklime should be added. Repeated applications will injure most foliage unless lime is added. Paris Green and Bordeaux can be applied together with perfect safety. The action of neither is weakened, and the Paris Green loses all caustic properties. If applied as a powder it should be mixed with flour or plaster, 100 parts to 1 part Paris Green.

London Purple.

This is used in the same proportion as

THIRD. Insects that suck the juices of plants may be plant lice, mealy bug, green and black fly, red spider, scale, etc. The poisons we apply to this class of our enemies kill by striking through the insect's skin and are referred to as **Contact Poisons**, some of them are:

Kerosene Emulsion.

Hard Soap.....	1/2 pound
Boiling Water.....	1 gallon
Kerosene	2 gallons

Dissolve the soap in the water, add the kerosene, and churn well with soap for 5-10 minutes. Dilute 10 to 15 times before applying.

FOURTH. Insects that bore into the tree or plant are retarded or injured by having Tanglefoot put in their way or Fish-Oil Soap or Whale-Oil Soap smeared or washed upon the plant's trunk.

Frequently some combinations of the above Fungicides and Insecticides may be made with advantage, as Bordeaux with Arsenate of Lead, or Kerosene Emulsion with Paris Green. Again, in advertised articles upon the market are found some very superior combinations and preparations.

Slug Shot. This well known preparation has been in use for more than a quarter of a century and its popularity does not diminish. It can be used on all sorts of vegetables, in the flower garden, on fruit bushes, trees or wherever the insect pests appear. It is an impalpable powder, non-poisonous to human beings or stock.

Sulphate of Nicotine contains 40 per cent of Nicotine and is not surpassed for use against plant lice or aphid in orchards or truck crops. It may be combined with Arsenate of Lead or Lime Sulphur or both. Use $\frac{3}{4}$ pint of Nicotine to 100 gallons of water.

Bug Death. This preparation we highly recommend. We have many testimonials at hand from large vegetables growers and we feel confident in offering it with our endorsement to any of our customers who want a quick-acting, non-poisonous bug killer. It can be used on all house plants, vegetable and fruit crops, with excellent results.

The application of remedies for fungus or poison for insects may be by dusting, using a powder gun, duster or bellows, and the liquids applied with a syringe, spray pump or vaporizing bellows.

To apply these remedies or poisons when fruit is in bloom may kill the bees and affect pollination.

Keep all poisonous properties under lock and key if possible, where poultry, stock and human beings are not apt to reach it by accident.

The copper carbonate is best dissolved in large bottles, where it will keep indefinitely, and it should be diluted with water as required.

Copper Sulphate Solution.

Copper Sulphate.....	1 pound
Water	15 gallons

Dissolve the copper sulphate in the water, when it is ready for use. This should never be applied to foliage, but must be used before the buds break. For peaches and nectarines use 25 gallons of water.

Practically all insecticides and fungicides are now put up in concentrated form, saving the gardener the trouble of mixing the ingredients. Frequently this prepared article is superior to that which could be mixed at home and often cheaper. In this buying one has a choice as between the fluid, paste or dry forms at times.

Paris Green, but as it is more caustic it should be applied with lime, or with the Bordeaux mixture.

Hellebore.

Fresh White Hellebore.....	1 ounce
Water	3 gallons

Apply when thoroughly mixed.

Arsenate of Lead.

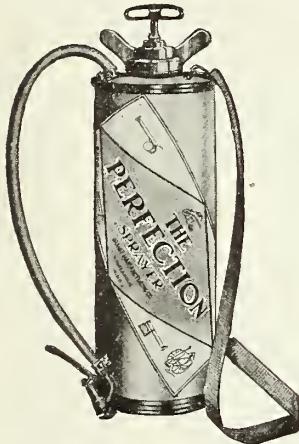
Among the insecticides none stand higher than this. It adheres and does not injure the most tender foliage, does not readily wash off and as it is white it shows where it has been applied. It remains so well suspended in solution as to give an even distribution.

Tobacco Dust or Tea.

The aphis or plant louse is not apt to go where there is tobacco dust and a tea made from tobacco, just tobacco boiled in water till the water is dark, is an excellent remedy for this class of pest.

THE "NEW MISTY"

A general purpose Sprayer, for farm, stable or garden uses. Handles fly-oils, bug poisons and disinfectants. Has large, powerful pump. Lock seamed can. Made of heavy tin. Tank 4x4½ in. Length over all, 21 in. Holds one quart.



THE "PERFECTION" SPRAYER

Highest Priced Sprayer in its Class—and Worth it.

For Spraying, Disinfecting or Whitewashing, on Plants, Bushes, Vines, etc. Made of heavier metal, with fewer parts, stronger in construction, more powerful in action. Pump has bronze ball valve, and is fastened to top of tank with heavy threads. Tank 7½-in. by 20-in., lock seamed with twenty-six rivets. Hose attached with clamps. All furnished with automatic shut-off nozzles which will handle whitewash and thin liquids without change of parts. Made of Galvanized Steel or all Brass.

The Standard Spray Pump

An All Brass Sprayer for Every Need

High pressure. Easy to operate. Simple, durable, low in cost. A barrel, bucket or knapsack sprayer all in one.

Dry or Grain Measure

2 pints make.....	1 quart
8 quarts make.....	1 peck
4 pecks make.....	1 bushel
36 bushels make.....	1 chaldron

Liquid or Wine Measure

4 gills make.....	1 pint
2 pints make.....	1 quart
4 quarts make.....	1 gallon
3½ gallons make.....	1 barrel
2 barrels make.....	1 hogshead

Avoirdupois Weight

27 11-32 grains make.....	1 dram
16 drams make.....	1 ounce
16 ounces make.....	1 pound
25 pounds make.....	1 quarter
4 quarters make.....	1 cwt.
20 cwts. make.....	1 ton
2,000 pounds make.....	1 short ton
2,240 pounds make.....	1 long ton
14 pounds make.....	1 stone
22½ stones make.....	1 pig
8 pigs make.....	1 fother
100 pounds make.....	1 quintal
5,760 grains apothecaries make.....	1 pound

Troy or Jewelers' Weight

24 grains make.....	1 pennyweight
20 pennyweights make.....	1 ounce
12 ounces make.....	1 pound

Apothecaries' Weight

20 grains make.....	1 scruple
3 scruples make.....	1 drachm
8 drachms make.....	1 ounce
12 ounces make.....	1 pound

Long Measure

12 lines make.....	1 inch
12 inches make.....	1 foot
3 feet make.....	1 yard
5½ yards make.....	1 rod
40 rods make.....	1 furlong
8 furlongs make.....	1 mile
3 miles make	1 league
69 1-6 miles make.....	nearly 1 degree
6,075 4-5 feet make.....	1 nautical mile

Square Measure

30¼ square yards make.....	1 square rod
40 square rods make.....	1 rood
4 roods make.....	1 acre
640 acres make.....	1 square mile

Surveyors' or Land Measure

7.92 inches make.....	1 link
25 links make.....	1 rod
4 rods make.....	1 chain
10 square chains make.....	1 acre
160 square rods make.....	1 acre
640 acres make.....	1 square mile
36 square miles make.....	1 township

Measurements of an Acre

10 rods by 16 rods.	40 yards by 121 yards.
8 rods by 20 rods.	220 feet by 198 feet.
5 rods by 32 rods.	110 feet by 396 feet.
4 rods by 40 rods.	60 feet by 726 feet.
5 yards by 968 yards.	120 feet by 363 feet.
10 yards by 484 yards.	300 feet by 145.2 feet.
20 yards by 242 yards.	400 feet by 108.9 feet.

Number of Plants or Trees to the Acre at Given Distances

Dis. apart.	No. plants.	Dis. apart.	No. plants.
12x 1 in.....	522,720	36x36 in.....	4,480
12x 3 "	174,240	42x42 "	12,446
12x12 "	43,560	42x24 "	6,223
16x 1 "	392,040	42x36 "	4,148
18x 1 "	348,480	48x12 "	10,890
18x 3 "	116,160	48x18 "	7,790
18x12 "	29,040	48x24 "	5,445
18x18 "	19,360	48x30 "	4,350
20x 1 "	313,635	48x36 "	3,630
20x20 "	15,681	48x48 "	2,723
24x 1 "	261,360	60x36 "	2,901
24x18 "	15,520	60x48 "	2,178
24x24 "	10,890	60x60 "	1,743
30x 1 "	209,088	8x 1 ft.	5,445
30x 6 "	34,848	8x 3 "	1,815
30x12 "	17,424	8x 8 "	630
30x16 "	13,068	10x 1 "	4,356
30x20 "	10,454	10x 6 "	726
30x24 "	8,712	10x10 "	435
30x30 "	6,970	12x 1 "	3,630
36x 3 "	58,080	12x 5 "	736
36x12 "	14,520	12x12 "	302
36x18 "	9,680	16x 1 "	2,722
36x24 "	7,260	16x16 "	170

Useful Information

Seed Required. Quantity per Acre.

Artichoke, 1 oz. to 500 plants.....	6 oz.
Asparagus, 1 oz. to 400 plants.....	1 lb.
Asparagus Roots	8,000 to 10,000
Barley	1 1/4 to 2 1/2 bu.
Beans, Dwarf, 1 pint to 100 ft. of drill	1 1/4 "
Beans, pole, 1 pint to 100 hills.....	1/2 "
Beans, Soya in drills.....	1/2 "
Beets, garden, 1 oz. to 100 ft. of drill	6 lbs.
Beet, mangel, 1 oz. to 100 ft. of drill	5 "
Broccoli, 1 oz. to 3,000 plants.....	4 oz.
Brussels Sprouts, 1 oz. to 2,500 plants	4 "
Buckwheat	1/2 to 1 bu.
Cabbage, 1 oz. to 2,500 plants.....	4 oz.
Carrot, 1/2 oz. to 100 feet of drill.....	3 lbs.
Cauliflower, 1 oz. to 2,500 plants.....	4 oz.
Celery, 1 oz. to 6,000 plants.....	4 "
Chicory	4 lbs.
Clover, Alsike and White Dutch.....	6 "
Clover, Lucerne or Alfalfa.....	15 to 25 "
Clover, Crimson Trefoil.....	10 to 15 "
Clover, Large Red and Medium	8 to 12 "
Collards, 1 oz. to 3,000 plants.....	3 oz.
Corn, rice (shelled).....	2 qt.
Corn, sweet, 1/4 pint to 100 hills.....	6 "
Corn, field	10 to 15 lbs.
Cress, 3/8 oz. to 100 feet of drill.....	12 "
Cucumber, 1 oz. to 60 hills.....	2 to 3 "
Egg Plant, 1 oz. to 1,500 plants.....	4 oz.
Endive, 1/4 oz. to 100 feet of drill.....	4 1/2 lbs.
Flax, broadcast, for seed.....	1/2 to 3/4 bu.
Garlic, bulbs, 1 lb. to 100 feet of drill	
Gourd, 2 oz. to 100 hills.....	
Grass, Blue, Kentucky.....	2 "
Grass, Blue, English.....	1 "
Grass, Hungarian and Millet.....	3/4 to 1 1/2 "
Grass, Mixed Lawn.....	75 lbs.
Grass, Red Top, Fancy, Clean.....	8 to 10 "
Grass, Red Top, Chaff Seed.....	20 to 28 "
Grass, Timothy	1/4 to 1/2 bu.
Grass, Orchard, Perennial Rye, Fowl	
Meadow and Wood Meadow.....	2 "
Hemp	3/4 to 1 1/2 "
Horse Radish Roots	10,000 to 15,000
Kale, drilled	4 lbs.
Kohl Rabi, 1-3 oz. to 100 feet of drill	4 "
Leek, 1-3 oz. to 100 feet of drill.....	4 "
Lettuce, 1/4 oz. to 100 feet of drill.....	3 "
Martynia, 1 oz. to 100 feet of drill.....	5 "
Melon, Musk, 1 oz. to 60 hills.....	2 to 3 "
Melon, Water, 4 oz. to 100 hills.....	2 to 4 "
Nasturtium, 2 oz. to 100 feet of drill	15 "
Oats	1 1/2 to 2 1/2 bu.
Okra, 1 oz. to 100 feet of drill.....	8 lbs.
Onion Seed, 1/2 oz. to 100 ft. drill	5 to 6 "
Onion Seed for sets.....	40 to 80 "
Onion Sets, 1 quart to 40 feet of drill	16 bu.
Parsnip, 1/2 oz. to 100 ft. of drill	4 to 5 lbs.
Parsley, 1/2 oz. to 100 ft. of drill.....	4 "
Peas, garden, 1 pt. to 100 ft. drill	2 to 3 bu.
Peas, field	2 "
Pepper, 1 oz. to 1,500 plants.....	1/2 to 1 lb.
Potatoes, Irish	8 to 12 bu.
Pumpkin, 1 oz. to 100 hills.....	3 to 4 lbs.
Radish, 2-3 oz. to 100 ft. drill	10 to 12 "
Rape, Dwarf Essex.....	5 to 10 "
Rutabaga	1 to 2 "
Rye	1 1/2 bu.
Salsify, 3/4 oz. to 100 feet of drill.....	8 lbs.
Spinach, 1 oz. to 100 ft. of drill	8 to 12 "
Spurry	15 "
Summer Savory	3/4 "
Sunflower	8 "
Squash, Summer, 4 oz. to 100 hills.....	3 "
Squash, Winter, 8 oz. to 100 hills.....	3 "
Tomato, 1 oz. to 2,000 plants.....	4 oz.
Tobacco, 1 oz. to 5,000 plants.....	2 "
Turnip, 1 oz. to 250 feet of drill	1 to 3 lbs.
Vetches	1 1/2 bu.
Wheat	1 1/2 "

Legal Weights and Measures—Pounds Per Bushel.

ARTICLES	Ills.	Ia.	Wis.	Mich	Ind.	Mo.	N.Y.	Ohio
Apples, dried	24	24	28	22	25	24	25	25
Apples, green	50	48	44	..	..	48	48	48
Bran	20	20	20	20	..	20	20	20
Barley	48	48	48	48	48	48	48	48
Beans, white	60	60	60	60	60	60	60	60
Beans, Castor	46	..	46	46	46	46	46	46
Broom corn seed	48	50	46	46	46	46	46	30
Beets	60	56	50	..	..	60	..	56
Carrots	50	50	50	..	..	50	50	50
Charcoal	20	20	..	22	..	22	22	..
Coal, stone	80	80	..	80	80	..	..	80
Coke	40	40	..	..	..	..	..	40
Corn, shelled	56	56	56	56	56	56	56	56
Corn, ear	70	70	..	70	68	70	..	68
Corn meal	48	48	50	50	50	50	50	50
Cranberries	33	..	35	40	33	..	..	..
Dried Peaches	33	33	33	28	33	33	32	33
Flax Seed	56	56	56	56	..	56	55	55
Grass Seed, Blue	14	14	14	14	14	14	..	..
“ Clover	60	60	60	60	60	60	60	60
“ Hungarian	50	50	48	50	..	48	48	50
“ Millet	50	50	50	50	50	50	..	50
“ Orchard	14	14	..	14	14	14	14	14
“ Red Top	14	14	14	14	..	14	14	14
“ Timothy	45	45	45	45	45	45	45	45
German Lupine	60	..	..	..	..	..	..	..
Hemp Seed	44	44	44	44	44	44	44	44
Hickory Nuts	50	50	..	..	..	..	..	..
Malt, Barley	38	..	34	38	..	38	34	34
Middlings, fine	40	..	..	40	..	..	..	..
Middlings, coarse	30	..	..	..	30	..	..	..
Oats	32	32	32	32	32	32	32	32
Onions	57	52	50	54	48	57	57	57
Onions, tops	30	28	..	28	..	28	28	25
Onions, sets	32	32	32	..	..	..	..	..
Osage Orange	33	32	..	33	..	..	..	..
Parsnips	50	45	44	..	55	54	..	..
Potatoes	60	60	60	60	60	60	60	60
Potatoes, Sweet	50	50	54	56	55	56	54	54
Peas, dried	60	60	60	60	..	60	60	60
Peas, in pods	32	50	..	..	..	..	..	..
Pop Corn	70	70	..	..	..	..	..	..
Quick Lime	80	80	..	80	..	80	80	..
Rye	56	56	56	56	56	56	56	56
Salt, coarse	55	80	70	..	50	50	50	70
Salt, fine	50	80	50	56	50	50	56	56
Turnips, Rut'b'ga	55	55	56	58	55	50	55	60
Turnips, White .....	..	42	..	..	42	..	..	..
Wheat	60	60	60	60	60	60	60	60

Average Time Required for Garden Seeds to Germinate.

	Days.	Days.	
Bean	5 to 10	Lettuce	6 to 8
Beet	7 to 10	Onion	7 to 10
Cabbage	5 to 10	Pea	6 to 10
Carrot	12 to 18	Parsnip	19 to 20
Cauliflower	5 to 10	Pepper	9 to 14
Celery	10 to 20	Radish	3 to 6
Corn	5 to 8	Salsify	7 to 12
Cucumber	6 to 10	Tomato	6 to 12
Endive	5 to 10	Turnip	4 to 8

**Time Required for Maturity of Different Garden Crops
Reckoned from the Day of Sowing the Seed.**

	Days.	Days.	
Beans, String	45 to 65	Lettuce	65
Beans, Shell	65 to 70	Melon, Water	120 to 140
Beets, Turnip	65	Melon, Musk	120 to 140
Beets, Long... Blood	150	Onion	135 to 150
Cabbage, Early	105	Pepper	140 to 150
Cabbage, Late	150	Radish	30 to 45
Cauliflower	110	Squash, Sum'r	60 to 65
Corn	75	Squash, Wint'r	125
Eggplant	150 to 160	Tomato	150
Turnip	60 to 70	Turnip	60 to 70

*Here is a little yarn, which we have read with a great deal of satisfaction
and think it worth re-printing. It was extracted from—*

A Case of Boxes

NINTH MONTH

NINETEEN-SEVENTEEN

VOLUME III

NUMBER 3

*A publication issued every "once in a while"
by Hummel & Downing Company in their
interests, and to be circulated among friends,
customers, and employees.*

Well, what did you raise? We eased the H. C. of L. off about two points with string beans, beets, carrots and the regular assortment of small stuff, some strawberries which rotted before they ripened, a few potatoes which the potato bugs found first, and some tomatoes and winter onions which have not yet reported.

It's been a great year for the amateur gardeners, a hard year for the seed men, and a funny year for those who can look on from the pinnacle of their superior knowledge of "How to Tell the Vegetables and What to Tell Them."

An expert recently computed that about 76 per cent of the potato crop in our country—representing the proportion planted by those who never sprayed a spud before—were crippled in early infancy because they were not hilled. Conversely the number of hand cultivators sold to amateurs by one seed house raises a grave suspicion that the gardens in question were actually cultivated out of existence like the cat whom kindness killed.

But whether the backyard farmers fill their cellars with the product of their soil and toil or not it has been a great summer. Everyone who tried it will admit it. A million tired business men have discovered a remedy for their kind of tiredness. A million tired women, suffering from the ennui of the unfilled engagement book, have found solace in the soil.

A certain suburb held a diminutive "State Fair" this fall and bankers, lawyers, doctors, bookkeepers, insurance men and clerks came bearing proudly the fruits and vegetables of their labors. Prizes were awarded, prizes which will be cherished through the long winter and will send their owners early to the spading in the spring.

Gardens produce many things beside potatoes and celery and other things that grow in the ground and above it. They produce a calmness of mind and an appreciation of the jimmy pipe in the cool of the evening, a pleasurable anticipation that gets one out in the dew in the early morning and lingers through a hot day at the office, a restful relaxation and a valuable education.

So, whether the crop this fall be bum or bumper, let us do our fall plowing and planning and be out with the first balmy breezes of the spring. For next year we will not be amateurs. We can laugh at those who are and gloat in the orderly rows and hedges of our Perfect Garden.

LEONARD'S SEEDS

SEED ANNUAL 1918



LEONARD SEED CO.
226-228-230 W. KINZIE ST.
CHICAGO